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Employee  
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# Cultural Resources Training Series

Modules 1 through 6  
Study Guide



# **Cultural Resources Training Series Modules 1 through 6 Study Guide**

National Employee Development Staff  
Soil Conservation Service  
United States Department of Agriculture

Revised October 1991

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Advisory Council on Historic Preservation

Arkansas Archeological Survey

Arkansas Historic Preservation Program

Mid-Continental Research Associates

National Conference of State Historic Preservation Officers

National Park Service

National Trust for Historic Preservation

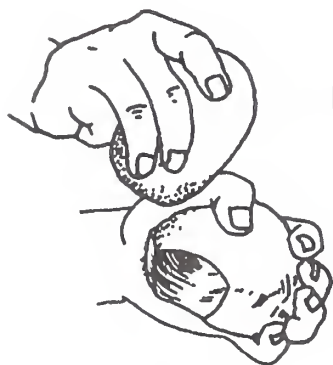
U.S. Department of Agriculture, Forest Service

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The rock outcrop had already yielded two cobbles of flint, neither of which had the right look. The old man hefted and immediately discarded one of them. He handed the other piece to his companion, who quickly split it and removed a hard-hammer flake. The flake was laced with impurities and was useless for making the tool he needed. He dropped it and removed other pieces. Within two hours time, the old man had inspected ten different cobbles of flint. He discarded some immediately and removed test flakes from the remainder. He decided to keep pieces for further work back at the camp. Now, the sun was sinking fast and the temperature had already fallen to 45 degrees. Despite his fatigue, the old man broke into a trot as the group began its 6-mile run back to camp.

.....

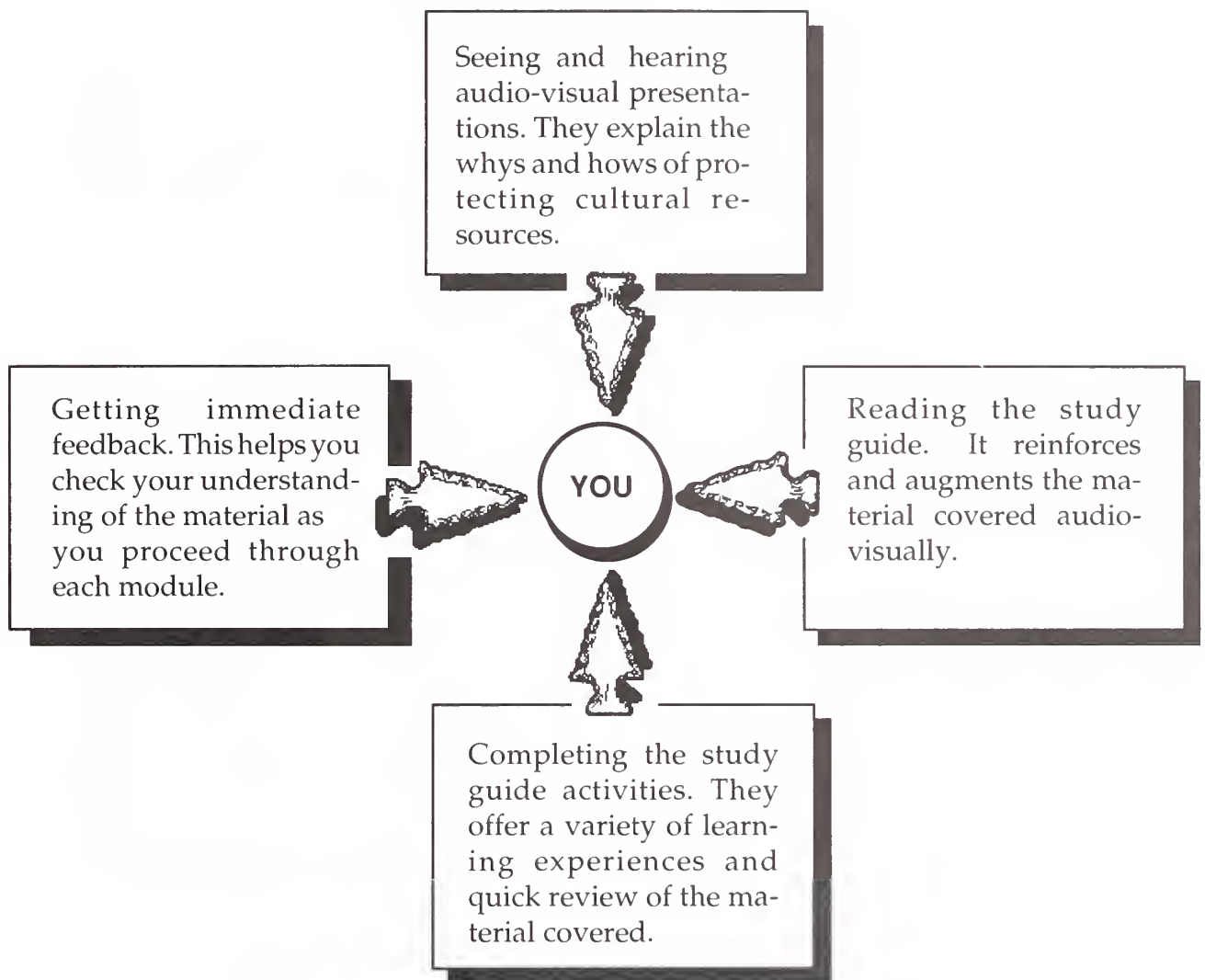
As she approached the other archaeologists, one of them was inspecting the rock outcrop. He was unable to detect where the flint had been removed from the outcrop. However, he immediately spotted the discarded flake and core. The others began a slow, radial search of the area and found more discarded cores as well as several large flakes. Pin flags were placed at the location of each find, and each artifact or group of artifacts was described and mapped. Since the light was beginning to fail, they hurriedly photographed the location and marked a starting place for the next day's survey. To the north, in the valley below the ridge, a plume of dust marked the progress of the truck coming to pick them up. All three started down the ridge slope.





This training program is for every SCS employee who is involved in project planning, conservation planning, or conservation application. It is designed to be user-friendly. Four key learning techniques point you in the right direction for assimilating and remembering the message.

You will learn by:



Turn the page to see how it works.

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It Works This Way:



Read module purpose and objectives in the Study Guide.



View the Audiovisual Presentation.



Return to the Study Guide.

The guide has been arranged to simulate a dialogue between you and the author. Typically, you will be given information; then it will be your turn to respond to the material by answering questions. Afterwards, you will be given feedback on your responses. The feedback is written up-side-down, but you still may want to mask the feedback sections while answering the questions. Have General Manual 420, Part 401 handy for reference.



Study at your own pace.

When you are satisfied with your understanding of the material, go to the next module.

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<b>Module 8</b>	Cultural Resources Field Workshop—(To be distributed at time of workshop)

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# SOCIAL SCIENCES

## CULTURAL RESOURCES TRAINING

### ***Objectives***

Upon completion of this training, the participant will be able to:

1. Define cultural resources.
2. Explain why SCS considers cultural resources.
3. Describe SCS policy and procedures for protecting cultural resources.
4. List public benefits gained from protecting cultural resources.
5. Describe how to identify cultural resources by conducting a cultural resources review and survey.
6. Develop and maintain an information file for use in determining the presence of cultural resources.
7. Document action taken to protect cultural resources.
8. Define National Register of Historic Places criteria.
9. Describe the action that should be taken when cultural resources are encountered during construction.

### ***Prerequisites***

None. Modules 1 and 2 of this training series are also contained in the training series, RES CON—Conservation for New Employees. Participants who have reviewed Modules 1 and 2 within the past 3 months can begin with Module 3 of this series.

### ***Length***

Four days. 1 to 2 days of self-study modules and 2 days for Module 8—Cultural Resources Field Workshop.

### ***Who Must Participate***

All SCS personnel who provide technical assistance to cooperators or who are involved in water resource planning.

### ***Content***

This training series consists of eight modules and a reference handbook for those involved in contracting for cultural resources. Modules 1-7 cover the protection of cultural resources, consideration of cultural resources in conservation planning, and identification of cultural resources in the field. Module 8 is a field trip study designed to give trainees experience in field survey techniques—recognizing cultural resources indicators, identifying them, and documenting them. Self-study modules are designed to bring trainees to KSA level 2 and KSA level 3 upon completion of field experience.

### ***Method***

Seven modules can be used for either self study or group study. When an employee has completed the first seven modules, the supervisor should submit his or her name to the State Office to be scheduled for Module 8, Cultural Resources Field Workshop. The Field Workshop will be scheduled by the State Office with assistance from the National Technical Center Cultural Resources Specialist.

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# SUMMARY OF MODULES

## Module 1

### *Cultural Resources—Why Are They Important?*

This module defines cultural resources, discusses why they are important, and explains the reasons why SCS protects them.

## Module 2

### *Cultural Resources in the Planning Process.*

This module explains the importance of planning for the presence of cultural resources in conservation activities and outlines the planning process.

## Module 3

### *Using Existing Information to Identify Cultural Resources.*

This module shows how to conduct a cultural resource review by examining current sources of information.

## Module 4

### *Identifying Cultural Resources in the Field.*

This module explains how to identify and document the presence of cultural resources on the ground as part of an environmental evaluation during planning.

## Module 5

### *Evaluating Cultural Resources.*

This module explains how a cultural resource is determined to be significant and eligible for the National Register of Historic Places.

## Module 6

### *Considering Cultural Resources During Implementation.*

This module discusses different types of mitigation plans, tells how such plans are carried out, and explains how to handle cultural resources discovered during construction.

## Module 7

### *The Early Americans—Regional History and Prehistory.*

This module treats the history and prehistory of North America in general. Understanding and identifying cultural resources that are unique to a region is also covered. The separate regional modules are: California, Northeast, Southeast, the Plains, Midwest, Southwest/Great Basin, Pacific Northwest, Arctic, and Hawaii/Pacific Islands.

## Module 8

### *Cultural Resources Field Workshop.*

This module is an in-the-field session to learn how to identify artifacts and other cultural resources while laying out practices or projects. The 1- to 2-day workshop is scheduled upon satisfactory completion of Modules 1 through 7.

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**\* Lagniappe—just because it's interesting . . .**

### **A Plains Indian Garden**

A living garden can scarcely be prehistoric, but it can be a reasonable facsimile of an ancient Indian's vegetable patch—provided the modern gardener can find authentic seeds. Most varieties of vegetables grown today are very different from the ancestral plants which Indians cultivated. The new, improved types of corn, beans, and squash have become so widely used that the older types have almost disappeared. To save them from extinction became the hobby of Charles E. Hanson, Jr., an engineer in the U.S. Department of Agriculture. With the help of his wife and children, he collected and planted seeds of the old-time varieties, some of them rare or even the last in existence. Now a flourishing garden which resembles those of the Plains Indians is sponsored by the Nebraska Historical Society. It can be seen at the Museum of the Fur Trade, 3 miles east of Chadron, Nebraska, on US 20.

Franklin Folsom and Mary Elting Folsom, *America's Ancient Treasures*, Rev. ed., University of New Mexico, Albuquerque, NM, 1983, pg. 184.

**\* A little something extra.**



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# MODULE 1

## CULTURAL RESOURCES— WHY ARE THEY IMPORTANT?

This module defines cultural resources and explains why SCS considers them in agency activities. You will need General Manual 420, Part 40I close at hand for reference.

### OBJECTIVES

When you have completed this module, you will be able to:

1. Define cultural resources.
2. Explain why SCS considers cultural resources in agency activities.
3. State SCS policy and identify the procedures SCS uses.
4. List public benefits gained from protecting cultural resources.

**Start your audiovisual equipment for Module 1.**

### INTRODUCTION

Do you enjoy looking at your family's photograph albums and souvenirs? Do you like hearing stories about your parents and their parents? Are family traditions important to you? Most of us are interested in our personal histories. We want to know about the past because it helps us recognize who we are, how we became what we are, and how we are similar as well as different from others.

In a broader sense, it is important to all of us to preserve the past—our North American cultural heritage—a legacy of over 10,000 years. To learn about these deepest roots of human development is to learn something of what humanity is, what shapes it, and of what it is capable.

It may be easy for you to dig into old trunks and talk with relatives to learn your personal heritage, but it is sometimes difficult to piece together the story of humankind. These stories await discovery in the fragile traces of the past. Some traces are easy to see and identify, while others are harder to detect. By carefully studying and recording these clues, we can learn how people lived, where they lived, what their homes were like, and if they were friendly with neighboring groups of people. We can begin to outline human history down through the ages and learn from the successes and failures of those before us.

### WHAT ARE CULTURAL RESOURCES?

We call these traces of the past *cultural resources*. Simply stated, cultural resources are all the past activities and accomplishments of people. They are of many types. They include buildings, objects, locations, and structures that have scientific, historic, and cultural value. You may be surprised that folkways, dance forms, and other less tangible resources are also considered cultural resources.

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The cultural resources that SCS deals with most often are known as historic properties. These may be prehistoric or historic districts, sites, buildings, structures, features, or objects. The type of historic property encountered most by SCS field personnel is a non-structural archeological site. It often extends below the soil surface and must be protected during SCS conservation practices because it is part of the overall resource base. Artifacts, records, and other scientific remains related to the historic property must also be conserved. Even a few flakes of chert deserve attention and should be recorded. Such a find, which initially might seem unimportant, could contribute to a larger pattern of knowledge about the past.

## YOUR TURN

Which of the following cultural resources may be encountered during SCS activities?

- |    |                                 |                          |
|----|---------------------------------|--------------------------|
| 1. | Town festival.                  | <input type="checkbox"/> |
| 2. | Remnants of an old road.        | <input type="checkbox"/> |
| 3. | Trailer park.                   | <input type="checkbox"/> |
| 4. | Arrowheads (projectile points). | <input type="checkbox"/> |

## FEEDBACK

If you checked numbers 2 and 4, you are right.

## WHY DOES SCS CONSIDER CULTURAL RESOURCES?

There are many reasons why SCS considers and protects cultural resources. Major reasons are that they are non-renewable, they provide information about the past, and they help solve modern-day problems. There is no way to “grow” a new archeological site or historic house once it has been destroyed. Even the act of excavating an archeological site and recording its information is ultimately destructive. That is why detailed record keeping is such an important part of archeological excavations.

The information recovered from studying cultural resources can be applied to present day activities. Archeological sites are important because they are the only way to learn about people who kept no written records. Information from archeological sites can also be used to confirm or correct the written records left by our ancestors.



## YOUR TURN

Briefly explain two major reasons why cultural resources should be protected.

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## FEEDBACK

You are right on track if your explanation goes like this.

Cultural resources are non-renewable resources that provide information about our past and protect our heritage for the future. They also help us solve modern-day problems.

## ANOTHER REASON WE CONSIDER CULTURAL RESOURCES: IT'S THE LAW!

Because of the unique value of these resources, Congress passed many laws protecting cultural resources from unnecessary destruction. One of the most important of these laws is the National Historic Preservation Act of 1966 (NHPA) and its amendments that established a national policy for protecting our important cultural resources. It also established the Advisory Council on Historic Preservation (ACHP), a body of the Executive Branch that serves as an overseer for historic preservation.

Section 106 of the NHPA requires Federal agencies to provide the Advisory Council on Historic Preservation an opportunity to comment on any Federal undertaking that may affect a cultural resource that meets specific criteria making it important enough to list in a register of historic places. A diagram of the section 106 process is included for reference at the end of this module.

The Advisory Council on Historic Preservation has procedures for implementing this section and other historic preservation requirements. *All Federal agencies are required to follow these procedures, which are entitled "Protection of Historic Properties."*

Under an agreement with the Advisory Council on Historic Preservation, SCS is allowed to follow its own procedures and to consider cultural resources as another resource concern in environmental evaluations. Failure to follow those procedures could result in lawsuits. Noncompliance with Section 106 of NHPA and/or other laws would result in the termination of the program agreement with the Advisory Council on

Historic Preservation. Lack of an agreement would then require renegotiation with each State Historic Preservation Office (SHPO) and result in innumerable conservation planning delays while this process was taking place. SCS procedures are shown in General Manual (GM) 420, Part 401. A full list of preservation laws and their summaries can be found in the GM 420, Part 401.1. A selected list of preservation law summaries can also be found at the end of this module

**YOUR TURN**

Turn to GM 401.1 to familiarize yourself with the complete list.

Which of the following appear in the list of preservation laws in GM 401.1?

	YES	NO
1. Antiquities Act of 1906.	<input type="checkbox"/>	<input type="checkbox"/>
2. Reservoir Salvage Act of 1960.	<input type="checkbox"/>	<input type="checkbox"/>
3. National Historic Preservation Act of 1966	<input type="checkbox"/>	<input type="checkbox"/>

**FEEDBACK**

If you answered "yes" to all of the above, you're right. Please note that in addition to these three laws, several more are in the list, including various implementing regulations.

**Nice-to-Know**

The Department of Agriculture has the distinction of being one of the first Federal agencies to be involved in protecting cultural resources. The Antiquities Act of 1906 gave this mandate to the Secretaries of Agriculture, Interior, and War, thus initiating a proud commitment on behalf of the Department.

**Rule of Thumb**

IF CULTURAL RESOURCES ARE LOCATED ON FEDERAL LAND,  
or if  
FEDERAL ASSISTANCE IS PROVIDED,  
or if  
FEDERAL PERMITS ARE NEEDED,  
or if  
IN ANY WAY THE FEDERAL GOVERNMENT IS INVOLVED IN  
ANY ACTIVITY WHICH MAY AFFECT A CULTURAL RESOURCE,  
then  
CULTURAL RESOURCES PROTECTION PROCEDURES  
MUST BE FOLLOWED.

**WHAT IS SCS POLICY REGARDING CULTURAL RESOURCES?**

SCS recognizes that cultural resources are an important part of our national heritage. It is SCS policy to protect and consider cultural resources in all its conservation programs. The protection and consideration of cultural resources is to be accomplished by:

- a. identifying and making plans to protect resources early in the planning and environmental evaluation phases of all assistance activities.
- b. preserving resources in the original place to the fullest extent possible and developing feasible alternatives to lessen unavoidable impacts that may be harmful.
- c. informing participants about the importance of the cultural environment and providing training to all field personnel.
- d. working with state and local authorities, other federal agencies, SCS participants, and the public to ensure the best way for conserving our Nation’s heritage.

More detailed information on SCS policy can be found in GM 420, Part 401.2. Procedures for implementing this policy in conservation operations, projects, and discoveries during construction are covered in GM 420, Parts 401.6-8.

**YOUR TURN**

Which of these two statements is true?

	TRUE	FALSE
1. It is the policy of SCS to wait until construction begins to think about cultural resources.	<input type="checkbox"/>	<input type="checkbox"/>
2. SCS will provide training for field personnel to ensure consideration of historic properties.	<input type="checkbox"/>	<input type="checkbox"/>

**FEEDBACK**

- 1. This is a false statement.
- 2. This is a true statement.

---

## WHAT PUBLIC BENEFITS CAN BE GAINED BY PROTECTING CULTURAL RESOURCES?

There are many informational, educational, and economical benefits to be gained from studying cultural resources. For example, they can give us information on *conservation problems*. By studying resource use in the past, we can learn which practices were destructive and resulted in the depletion of resources and which practices were successful. Using this information, we can develop better conservation practices today.

Because the age of archeological sites often can be determined, they can provide us with information on *environmental fluctuations*. Archeological sites provide a much longer record of past climatic variation than do historic records. Many historic records only contain consistent information of the last 50 years. Information on rainfall and waterflow fluctuations from pollen, plant, and sediment studies can assist planners in designing water control structures that will adequately retain floodwater.

Prehistoric (before written history) archeological sites also provide the only record of the *relationships between people and their environments* in the remote past. By understanding how changing environments affected people in the past, we can better understand our own relationship with the natural environment. For example, we can take a lesson from the Mesopotamian civilization of 5000 years ago. The people who gave us writing, the wheel, and irrigation were overpowered by problems with their natural environment. This complex civilization wrestled with the problems of salinity and lost. We are faced with similar problems today.

The recent droughts of 1980 and 1988 have had major impacts on agriculture and our economy. The need to predict these climatic events is clearly the best way of planning for and coping with them when they occur. It is important to know how often these events are likely to happen. The National Oceanic and Atmospheric Administration has proposed a study of archeological sites for this kind of information. Our future may, indeed, be tied to the past more than we realize at this moment!

Rural development programs can also benefit from the management of cultural resources. Restoring historic building is not only *economical*; it also *conserves energy, produces less air pollution, and creates more jobs* than constructing new buildings. Rehabilitation is more labor intensive.

An Advisory Council on Historic Preservation study found, for example, that restoring the Grand Central Arcade, an old hotel in Seattle, Washington, saved 90 billion BTUs (British thermal units) of energy. The energy saved was enough to operate the building for the next 200 years. Rehabilitation also encourages the *use of already existing but unused* buildings within a community rather than encouraging growth and development into surrounding *farmland areas*.

### ***For Inquiring Minds***

For more information on public benefits, see the extra pages at the end of this module for an interesting account of prehistoric Hohokam Indians of Arizona and what we are learning from their way of life.

## YOUR TURN

The audiovisual presentation and this study guide gave numerous examples of benefits derived from preservation of cultural resources.

List five examples of scientific or public benefits gained from the study of cultural resources.

- a. \_\_\_\_\_
- b. \_\_\_\_\_
- c. \_\_\_\_\_
- d. \_\_\_\_\_
- e. \_\_\_\_\_

## FEEDBACK

If your answers included any of the following, you have been paying attention.

- 2. Public benefits
  - a. Renewed use of downtown areas.
  - b. Preservation of farmland.
  - c. Saving of energy.
  - d. Creation of jobs.
  - e. Promotion of tourism.
  - f. Creation of recreation areas.
  - g. Improvement of modern-day tools.
- 1. Scientific benefits
  - a. Soil and water conservation engineering designs.
  - b. Soil development information.
  - c. Animal species diversity.
  - d. Plant information.

## *Spirit of law*

The Federal Government protects cultural resources because they are our heritage and identity. They give us all a sense of direction and belonging. Cultural resources are the tangible symbols of our beginnings as well as the reminders of our growth and maturity.

Will future generations forgive us if we allow our roots to be neglected or destroyed?

## THIS CONCLUDES MODULE 1

You deserve a break before continuing with Module 2—  
Cultural Resources in the Planning Process.



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# CAN THE CENTURIES-LONG EXPERIENCE OF THE HOHOKAM, WHOSE PAST LIES BURIED BENEATH MODERN PHOENIX, BE IGNORED?

By Fred Plog, Professor in the Anthropology/Sociology Department at New Mexico State University, Las Cruces.

(This article is reprinted by permission of Fred Plog)

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Phoenix and its suburban area encompassing Tempe, Scottsdale and Mesa, with a population of more than one-and-one half million, comprises one of the most rapidly growing metropolises in the country. Sustained only by transportation ties that bring food, dams and canals that bring water, and power that is produced on the plateaus hundreds of miles away, this urban complex covering 9,253 square miles may be described as a modern miracle arising in the southern Arizona desert. Can such an enterprise be sustained? Better yet: What do we need to know to sustain it?

The history of our own society, barely 100 years old in the southwestern deserts, does not provide answers. In lesser time than this, desert cities all over the planet have failed. Those that have lasted for centuries are relatively few. One group of desert people with more success were the Hohokam, whose archeological remains lie buried beneath the Phoenix metropolis, and who mastered the difficult environment of the southern Arizona desert for at least ten centuries, and perhaps much longer—from 300 B.C. to A.D. 1450.

Surely, such a record of success—but of ultimate failure—can provide important clues to the problems that modern inhabitants of the area are facing now and must confront in the future.

Differences in technology between modern society and the ancient Hohokam are not so great as one might think. A simple example: The thick, adobe-walled buildings of the Hohokam are increasingly being copied as a means of maintaining even temperatures—“passive heating/cooling”—in the sometimes torrid, sometimes frigid desert.

Even more notable: The very water supply on which the modern metropolis depends is fundamentally the one that served the Hohokam. Omar Turney, an amateur archeologist who made major contributions to our understanding of Hohokam life, was the first Phoenix city engineer. He was hired to build a water supply system, and recognizing the importance of the centuries-old remnants of Hohokam canals, he modelled his system on the pattern of ancient channels.

What else can be learned from these resourceful people of the past? Water, salt, and people are pivotal concerns.

Floods: Even a desert, the variation in water flowing through the rivers is enormous, and in the last decade, Phoenix has experienced several “hundred year floods”. With only a hundred years of stream flow records

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for the area, however, the extent of a genuine hundred year flood is unlikely to have been recorded. In fact, farther from the present-day river channel than any modern flood has reached are Hohokam sites containing dense silt layers left by flooding. It is quite likely that these prehistoric sites contain the very record of flooding that modern residents should be aware of to prepare for a truly major flood.

Drought: The Central Arizona Project is a canal system being built to bring Colorado River water to Phoenix and Tucson. Tunnels have been drilled through mountains and concrete-lined channels excavated across the desert. But will there be enough water? Extending back into Hohokam times, records compiled in the Southwest of tree-rings, which are formed annually and vary in thickness proportionate to yearly precipitation, suggest a problem. If these records are correct, Arizona and the other western states drew up their plans to divide the waters of the Colorado River on the basis of the two wettest decades in centuries.

Salt: Desert rivers are often saline—the Salt River of the Phoenix area is not casually named. In desert environments, soils are also fragile. When large volumes of water are dumped on them, these soils trap the salt. In large quantities, salt poisons plants. Today, residents of the area routinely purchase chemicals to offset the ubiquitous yellowing of lawns and shrubs caused by chlorosis or salt poisoning. The government spends millions of dollars each year to remove salt from downstream canals whose waters are poisoning fields along the Mexican border.

One early theory is the Hohokam demise focused on salt. Maps of their canals correspond closely with charts of the Phoenix area today showing where soils are strongly alkaline—heavily saturated with soil salts. Studies of prehistoric pollens suggest that Hohokam peoples during the later periods may have grown salt-loving plants in their agricultural fields to avert impending catastrophe.

Salt may not have been the only cause of the Hohokam demise, but it almost certainly contributed to this society's collapse. Which Hohokam groups overcame the salt problem? And How?

The answers to these questions could provide the solutions to a major problem in the Southwest.

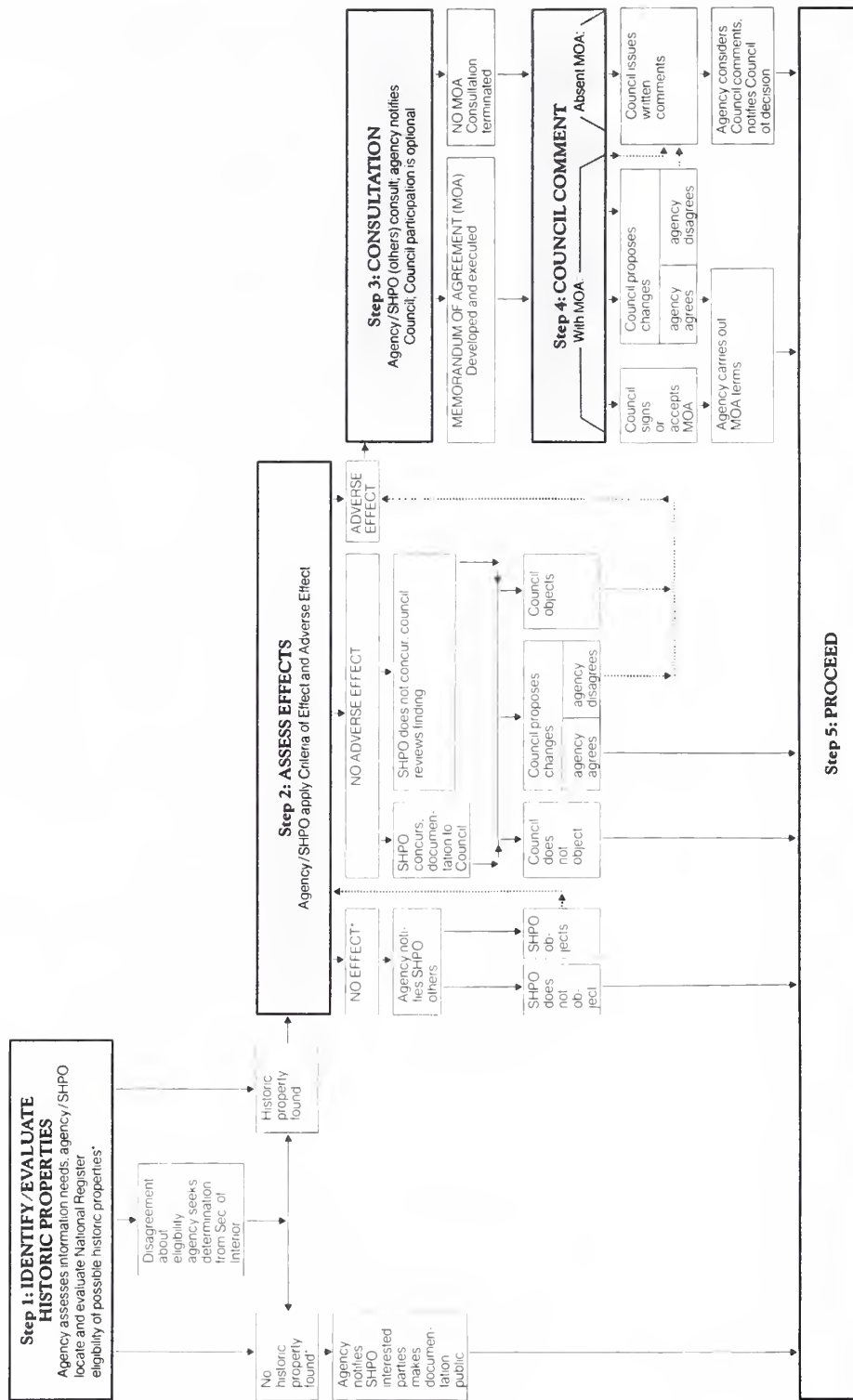
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FIGURE 7

# THE SECTION 106 PROCESS DIAGRAMMED

## BASIC STEPS OF THE SECTION 106 REVIEW PROCESS

This flow chart plots the major steps of Section 106 review.  
For complete details, refer to the regulations at 36 CFR Part 800.



\*Public may request Council review of agency's findings at these points



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# CULTURAL RESOURCE LEGISLATION

## ***Executive Order No. 11593***

*"Protection and Enhancement of the Cultural Environment," 3 C.F.R. 154 (1971), reprinted in 16 U.S.C. §470, note*

This directs Federal agencies to take a leadership role in preserving, restoring, and maintaining the historic and cultural environment of the Nation. Agencies **must** locate, inventory, and nominate to the National Register all historic resources under their jurisdiction **or control**. Until this process is completed, agencies must ensure that potentially qualified properties are not transferred, sold, demolished, or substantially altered. When planning projects, agencies request the opinion of the Secretary of the Interior as to the eligibility for National Register listing of properties whose resource value is unknown. Agencies are directed to institute procedures, in consultation with the Advisory Council on Historic Preservation, to ensure that Federal plans and programs contribute to the preservation and enhancement of non-federally owned historic resources.

For information and procedures on requesting determinations of eligibility, consult the Keeper of the National Register of Historic Places, National Park Service, Department of the Interior, P.O. Box 37127, Washington, DC 20013-7127.

## ***Antiquities Act of 1906***

16 U.S.C. §§431–433

This authorizes the President to designate as National Monuments historic and natural resources of national significance located on federally owned or controlled lands. The act further provides for the protection of all historic and prehistoric ruins and objects of antiquity located on Federal lands by providing criminal sanctions against excavation, injury, or destruction of such antiquities without the permission of the Federal department. The Secretaries of the Interior, Agriculture, and Defense are further authorized to issue permits for archeological investigations on lands under their control to recognized educational and scientific institutions for the purpose of systematically and professionally gathering data of scientific value.

For further information consult the Departmental Consulting Archeologist, National Park Service, Department of the Interior, P.O. Box 37127, Washington, DC 20013-7127.

## ***National Environmental Policy Act of 1969***

42 U.S.C. §§4321–4347

This directs Federal agencies to administer Federal programs and resources to foster environmental quality and preservation. For major Federal actions significantly affecting the quality of the human environment, Federal agencies must prepare and make available for public comment an environmental impact statement.

Compliance with the National Environmental Policy Act may be done in coordination with compliance with the National Preservation Act (NPHA) under the regulations of the Advisory Council on Historic Preservation, 36 CFR Part 800.

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For further information, consult the Office of Program Review and Education, Advisory Council on Historic Preservation, 1100 Pennsylvania Avenue, NW, Room 803, Washington, DC 20004 (Telephone: FTS 786-0505 or 202-786-0505).

### ***Archaeological Resources Protection Act of 1979***

16 U.S.C. §§470aa–470ll

This requires a permit for any excavation or removal of archeological resources from public lands or Indian lands. Excavations must be undertaken for the purpose of furthering archeological knowledge in the public interest, and resources removed remain the property of the United States. The act provides both civil and criminal penalties for violation of the permit requirements. Consent must be obtained from the Indian tribe owning or having jurisdiction over lands on which a resource is located prior to issuance of a permit, and the permit must contain any terms or conditions requested by the tribe.

### ***National Historic Preservation Act of 1966 (NHPA)***

16 U.S.C. §§470–470w–6

This expresses a general policy of supporting and encouraging the preservation of prehistoric and historic resources for present and future generations by directing Federal agencies to assume responsibility for considering historic resources in their activities.

First, the act authorizes the Secretary of the Interior to maintain a National Register of Historic Places and establishes procedures for nomination of properties to the Register.

Second, the act directs State preservation programs that provide for the designation of a State Historic Preservation Officer (SHPO) to administer preservation efforts, a State Historic preservation review board, and public participation in the State program.

Third, the act authorizes a grant program that provides funds to the States for historic preservation projects and to individuals for the preservation of properties listed in the National Register.

Fourth, the statute established the Advisory Council on Historic Preservation as an independent Federal agency. The act directs the Council to advise the President, Congress, and other Federal agencies on historic preservation matters, conduct training and other educational programs, and encourage public interest in preservation.

The Council is also responsible for implementation of Section 106 of NHPA. Section 106 requires Federal agencies to take into account the effect of their undertakings on historic properties and afford the Council an opportunity to comment on the undertakings. To administer these requests, the Council has issued regulations to govern agencies in their compliance with Section 106.

Fifth, the act established procedures that Federal agencies must follow in managing federally owned or controlled property and requires that, prior to the approval of any Federal undertaking, agencies must undertake such planning to minimize harm to the landmark.

Procedures for the nomination of properties to the National Register under NHPA have been established by the National Park Service at 36 CFR Part 60. Procedures for the Section 106 are at 36 CFR Part 800.

For further information on the nomination procedures, consult the Keeper of the National Register of Historic Places, National Park Service, Department of the Interior, P.O. Box 37127, Washington, DC 20013-7127. For further information on the Council's procedures, consult the Advisory Council on Historic Preservation, 1100 Pennsylvania Avenue, NW., Room 809, Washington, DC 20004.

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***1972 amendment to  
the Federal Property and  
Administrative Services Act  
of 1949***

40 U.S.C. §484(k)(3)

This authorizes the General Services Administration to convey approved surplus Federal property to any State agency or municipality free of charge, provided that the property is used as a historic monument for the benefit of the public. The act includes recapture provisions under which the property would revert to the Federal Government should it be used for purposes incompatible with the objective of preserving historic monuments.

Address inquiries to the Federal Property Resources Service, Office of Real Property, General Services Administration, 18th and F Streets, NW, Room 4236, Washington, DC 20405.

***The Historic and  
Archaeological Data  
Preservation Act of 1974***

16 U.S.C. §§469–469c

This is directed to the preservation of historic and archeological data that would otherwise be lost as a result of Federal construction or other federally licensed or assisted activities. When Federal agencies find that their undertakings may cause damage to archeological resources, the agencies must notify the Secretary of the Interior, in writing, of the situation. The agencies involved may undertake recovery, protection, and preservation of data with their own project funds, or they may request the Secretary of the Interior to undertake preservation measures.

For further information consult the Associate Director, Cultural Resources, National Park Service, Department of the Interior, P.O. Box 37127, Washington, DC 20013–7127.

***Historic Sites Act  
of 1935***

16 U.S.C. §§461–467

This establishes as national policy the preservation for public use of historic resources by giving the Secretary of the Interior the power to make historic surveys and to document, evaluate, acquire, and preserve archeological and historic sites across the country. The act led to the eventual establishment within the National Park Service of the Historic Sites Survey, the Historic American Buildings Survey, and the Historic American Engineering Record.

For further information consult the Associate Director, Cultural Resources, National Park Service, Department of the Interior, P.O. Box 37127, Washington, DC 20013–7127.

## Lagniappe—just because it's interesting . . .

### The Dog and the Prehistoric Indian

Some archeologists think that about 8,500 years ago men and arctic wolves discovered benefits in living close to each other. The wolves got refuse to eat; men had scavenging done for them. From this partnership a breed of dogs developed and spread throughout Europe and America.

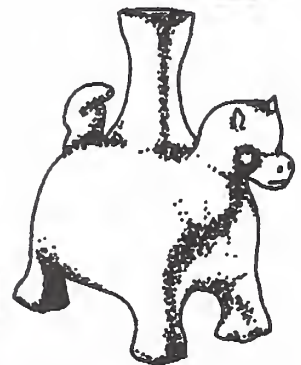
No one knows exactly when dogs first appeared in North America, but they were here by 2000 B.C., perhaps earlier.

Dogs may have helped hunters pursue game. No one is sure about this, but there is no doubt that dogs were companions for adults and playmates for children. Before they were ever used in hunting (if they were so used), dogs had an important place in the religious ceremonies of some tribes. They were occasionally sacrificed in somewhat the same way that animals were sacrificed in biblical times. Sometimes dogs were buried with special honors. Sometimes they were eaten ceremonially—or simply as food. In some areas, particularly in the Southwest and on the Northwest Coast, Indians raised special long-haired dogs. They used the hair in weaving blankets and belts.

Dogs were known throughout much of America, especially where men were hunters. In some farming areas archaeologists have found no dog skeletons at all. Wherever they existed, dogs were the most important domesticated animal, often the only domesticated animal. In the Plains area they carried loads on special pole frames called travois (truh-VOY).

One curious fact: In many places the very earliest dogs were very small. Later, dogs in the warmer parts of the continent were small, but farther north they were large, and the largest of all lived farthest north.

Franklin Folsom and Mary Elting Folsom,  
*America's Ancient Treasures*, Rev. ed., University  
New Mexico, Albuquerque, NM, 1983, pg. 37.



Pottery in the form of a dog made by an artist of the Mississippian culture in Tennessee. Original in the Peabody Museum, Harvard University.



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# MODULE 2

## CULTURAL RESOURCES IN THE PLANNING PROCESS

**Cultural resources are among many resources SCS considers in conservation planning. This module explains how.**

### OBJECTIVES

When you have completed this module, you will be able to:

1. Describe SCS authority and responsibilities for protecting cultural resources.
2. List the basic steps to be taken in protecting cultural resources.
3. List basic sources of information and assistance.

**Start your audiovisual equipment for Module 2.**

### WHAT ARE SCS AUTHORITIES FOR PROTECTING CULTURAL RESOURCES?

Cultural resources are some of the many resources SCS considers during conservation planning. Because they cannot be replaced, it is important to plan for the presence of cultural resources in order to protect them.

The laws and regulations mentioned in Module 1 give SCS the authority and the responsibility to protect cultural resources. The specific procedures of SCS are described in GM 420, Part 401: SCS Policy and Procedures for Protecting Archeological and Historic Properties (Cultural Resources).

### WHAT ARE THE STEPS IN CONSIDERING CULTURAL RESOURCES IN CONSERVATION PLANNING?

Protecting cultural resources is required by law, and steps must be taken to ensure their protection. By considering them early in the planning process, SCS saves TIME and MONEY as well as CULTURAL RESOURCES. The lack of consideration in the planning stage could possibly result in delays or cancellations of SCS activities after they are under way. *Plan early.*

How? The procedures for planning for cultural resources are covered in GM 420, Parts 401.6 and 401.7. This guide outlines the procedure in five steps.

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Before you go on to the five steps, pause and study a few definitions. Pay attention to these terms because they will be used over and over in this training series.

## ***Definitions***

1. **Effect:** any change, whether good or bad, in the quality of a cultural resource's significant historic, architectural, or archeological characteristics. Effects are determined by applying procedures listed in GM 420, Part 401.24.
2. **Adverse effect:** a bad (damaging) change to the quality of the cultural resource's significant characteristics. This effect will result in a loss of important information.
3. **Significant property:** a cultural resource important enough to meet the standards of the National Register of Historic Places. (Note: some cultural resources which do not meet national standards are of local significance and may appear on state registers. These also must be considered.)
4. **Mitigating measures:** actions that can be taken to lessen the harm that will be done to a cultural resource. These actions may include work restrictions, repair, restoration, documentation, protective covering, or planned removal of a resource.
5. **State Historic Preservation Officer (SHPO):** appointed official responsible for administering the National Historic Preservation Act (NHPA) within a state government or jurisdiction. SCS is required by federal law to work closely with SHPOs in the preservation of cultural resources.

## ***Step 1— Determine Nature of Assistance***

First, be aware of the kinds of SCS activities that might harm or destroy (adversely affect) cultural resources.

## **YOUR TURN**

Turn to GM 420, Part 401, Section 20 and read the list of activities which might harm cultural resources. Then come back here.

FEEDBACK

You have just read the wide range of activities that can affect cultural resources. Many SCS practices, such as conservation tillage cropping, only involve working in the surface plow zone and will not have any harmful effects on cultural resources. Others like grass seeding on HEL acres will benefit the resource by preventing erosion and subsequent information loss. However, SCS practices that extend below the plow zone (deeper) or remove the ground surface by excavation or grading can have an adverse effect on resources by disturbing their placement, resulting in a loss of information.

YOUR TURN

Indicate which of the examples might be SCS activities which would affect cultural resources.

	YES	NO
1. Building of floodwater retarding structures.	<input type="checkbox"/>	<input type="checkbox"/>
2. Land smoothing.	<input type="checkbox"/>	<input type="checkbox"/>
3. No-till.	<input type="checkbox"/>	<input type="checkbox"/>
4. Channelization.	<input type="checkbox"/>	<input type="checkbox"/>

FEEDBACK

4. If you answered yes, you are correct.
3. If you answered no, you are correct.
2. If you answered yes, you are correct.
1. If you answered yes, you are correct.

YOUR TURN

List practices you normally recommend that might have an effect on cultural resources.

FEEDBACK

Discuss your answers with your supervisor.

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**Step 2—  
Identify Cultural  
Resources**

If a practice has the potential for affecting cultural resources, it is necessary to find out if there are any in the planning area. Module 3 will describe the various sources of information that you can check to help you make this determination. You may find that cultural resources are definitely present. However, you may find that although no cultural resources are currently known to be in the planning area, it may be that cultural resources do exist there. To identify these potential cultural resources, you need to conduct a cultural resource survey. This is a systematic field examination of the area to be affected. Module 4 will describe how to identify cultural resources in the field. If no cultural resources are there or if no harmful effects will occur, you can record the determination in the environmental evaluation and proceed with the practice. Procedures for environmental evaluations are listed in GM 190, Part 140.5.

**Step 3—  
Avoid Adverse Effects  
on Cultural Resources**

If cultural resources are present, the recommended action is to design the practice or project to avoid or work around the cultural resources. You may also want to contact your SCS cultural resources coordinator to see if the resource is already known and whether it is listed as significant. If the cultural resources cannot be avoided, you may be able to develop or plan a practice that will not adversely effect them. For example, you might consider using vegetative cover rather than terracing in an erosion control project. The cover would not disturb the ground surface any more than standard agricultural practices do.

**Step 4—  
Determine Significance  
If Avoidance is  
Not Feasible**

If you cannot avoid the cultural resource or redesign the practice or project, it is necessary to determine the significance of the cultural resource. Cultural resources specialists make these types of decisions. Module 5 will describe how this is done. Sometimes, it will be determined that the cultural resource is not significant. If it is not, the decision and the reason for the determination will be documented in the environmental evaluation, and you can proceed.

If it is found that the resource is significant, it must be determined if the practice will have an adverse effect on the resource. (Remember: an adverse effect occurs when there is damage to the qualities which make the resource significant.)



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**Step 5—  
Develop Mitigating  
Measures**

If the practice will have an adverse effect on a significant resource, a cultural resources coordinator or specialist will work with you in developing mitigation measures or protection alternatives. These alternatives may involve scientific study by SCS cultural resources specialists and other archeologists.

Non-project technical assistance may proceed after agreement among the cooperator, SCS, and the State Historic Preservation Officer (SHPO) on the mitigation alternatives. If no agreement can be reached, it is necessary to review alternatives with the cooperator to decide the action that achieves the greater public benefit. If protecting the cultural resource provides the greater public benefit, SCS should not proceed with the assistance.

For project activities, agreed-on mitigation alternatives must be completed before you can proceed. You and the state cultural resources coordinator will work together to coordinate field work. The state cultural resources coordinator will coordinate actions and results with the SHPO.

**Important**

ALL DECISIONS ABOUT TREATMENT OF THE RESOURCES MUST BE MADE IN CONSULTATION WITH THE LANDOWNER, YOUR SUPERVISOR, AND SCS STATE CULTURAL RESOURCES COORDINATOR. THIS IS REQUIRED TO AVOID PROBLEMS AND PROGRAM DELAYS.

**YOUR TURN**

In your own words, briefly describe the five broad steps for considering cultural resources in conservation planning.

Step 1 \_\_\_\_\_

Step 2 \_\_\_\_\_

Step 3 \_\_\_\_\_

Step 4 \_\_\_\_\_

Step 5 \_\_\_\_\_

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## FEEDBACK

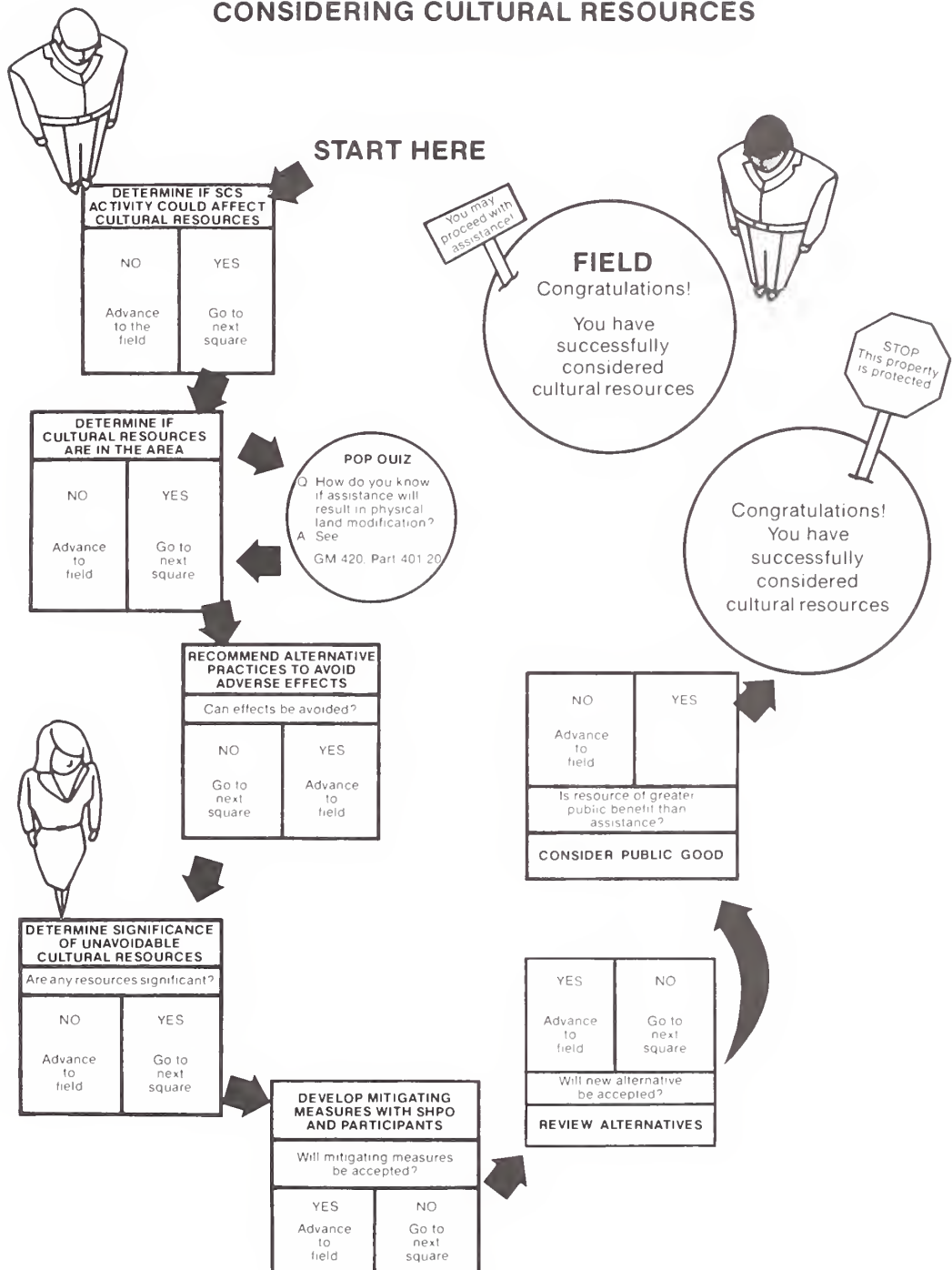
If your answer looks like this, you have Covered Your Assignment.

5. Develop mitigating measures.
4. Determine significance if avoidance is not possible.
3. Avoid adverse effects on cultural resources.
2. Identify cultural resources.
1. Determine nature of assistance.

## YOUR TURN

These five steps are the core of considering cultural resources. To emphasize their importance and test your skills in applying them, study the following page.

## CONSIDERING CULTURAL RESOURCES



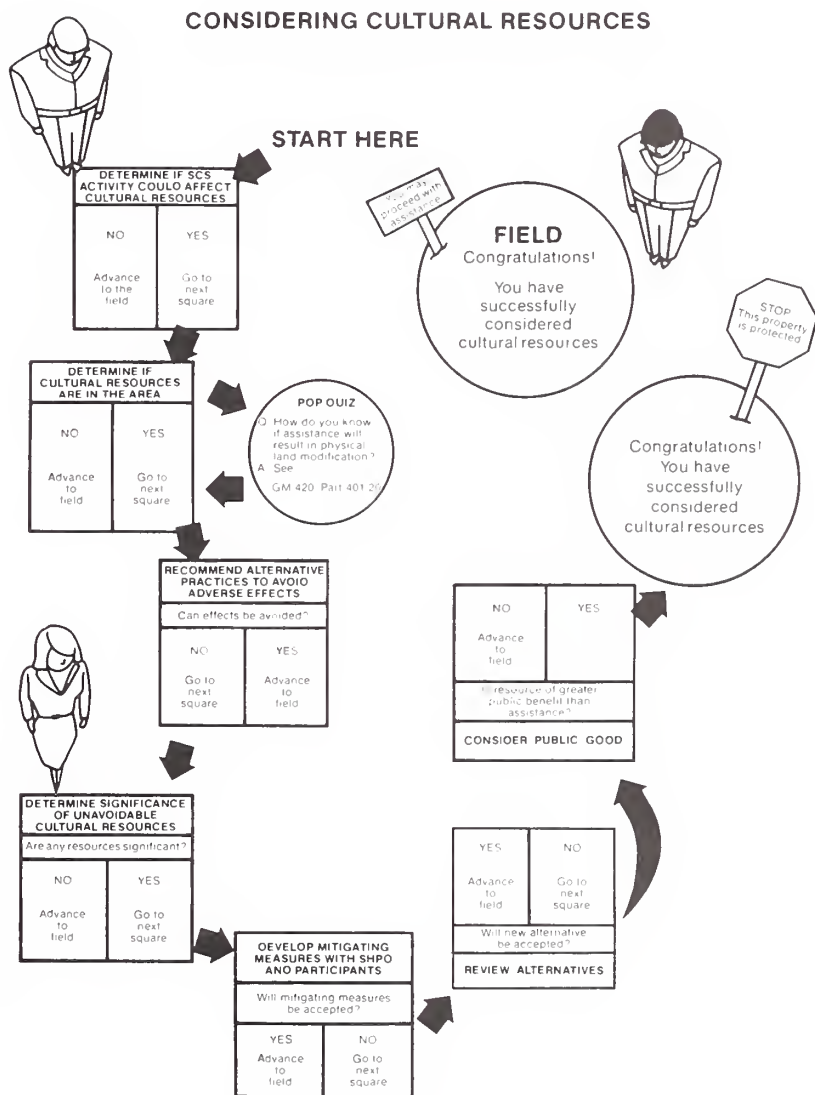


## FEEDBACK

You now get the idea of the kinds of choices required in protecting cultural resources. For practice keep the steps in mind for the following activities.

## YOUR TURN

Your assignment: Make an HEL determination in the field. Follow the squares to protect cultural resources as you carry out your assignment.



## FEEDBACK

Compare your planning with the plan on the next page. Are you a winner?

START HERE



DETERMINE IF SCS ACTIVITY COULD AFFECT CULTURAL RESOURCES	
NO	YES
Field HEL determination will not affect cultural resources.	



**POP QUIZ**

HEL determinations are exempt from cultural resource inventories.  
GM 420, Part 401.4

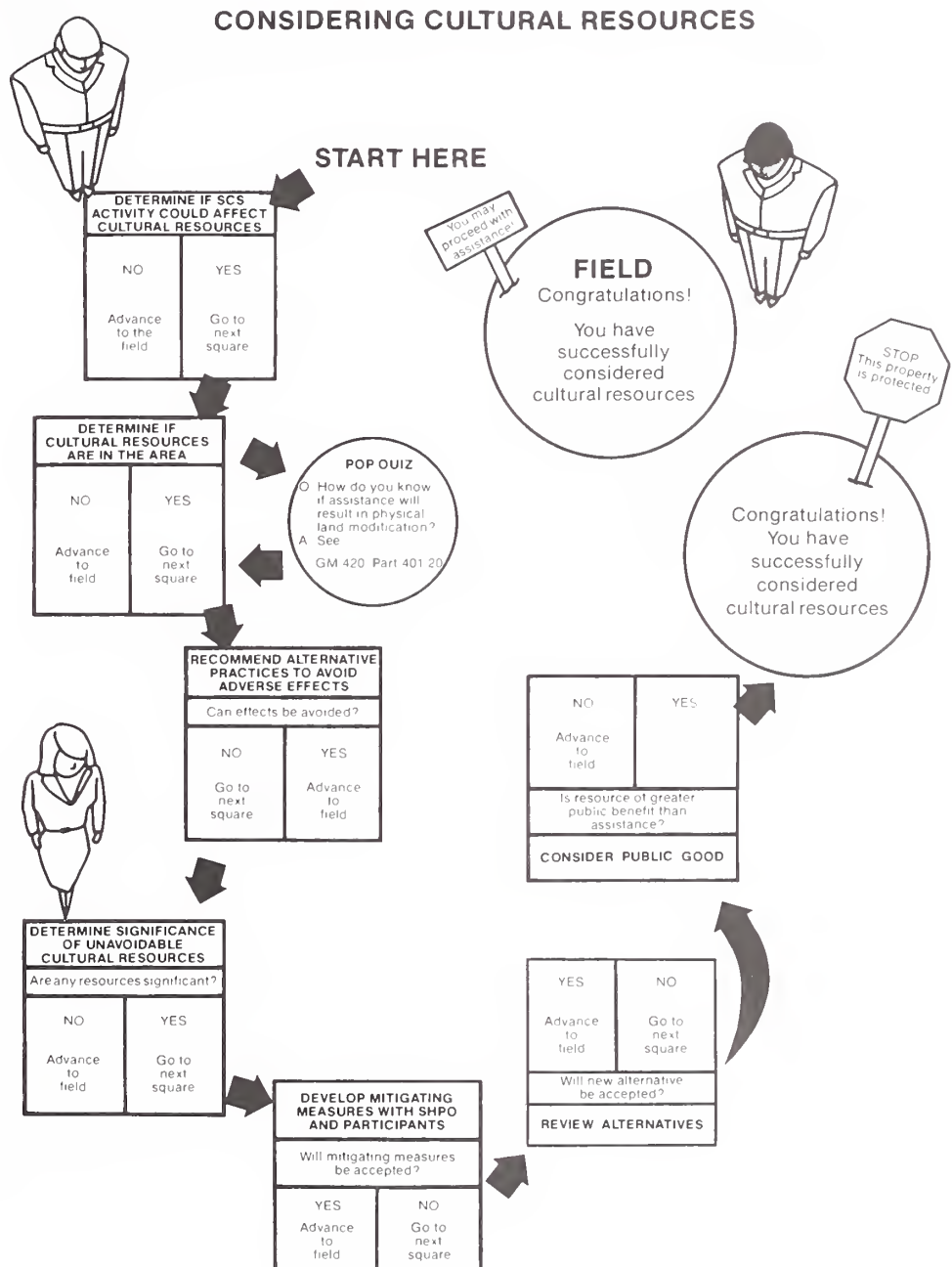


**FIELD CONGRATULATIONS!**

You have successfully considered cultural resources  
Proceed with assistance

## YOUR TURN

Your assignment: Make a conservation plan for a land user that includes No-Till farming as a practice. Follow the squares to protect cultural resources as you carry out your assignment.



## FEEDBACK

Your strategy should be the same as shown on the next page.

START HERE



DETERMINE IF SCS ACTIVITY COULD AFFECT CULTURAL RESOURCES	
NO	YES
No-till will not affect cultural resources.	



**POP QUIZ**  
**GM 420, PART 401.20**

Conservation tillage  
will not involve any  
land modifications.



**FIELD**  
**CONGRATULATIONS!**

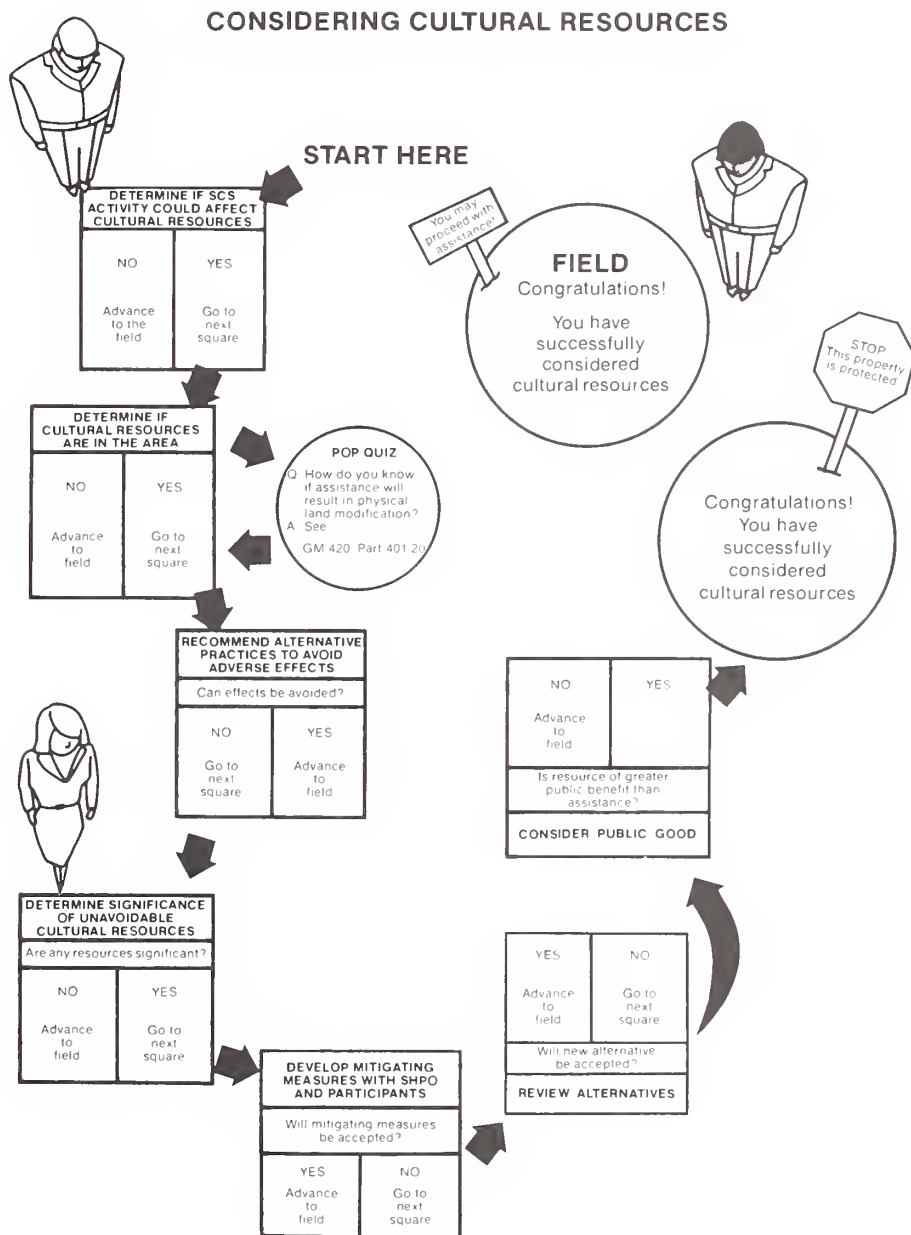
You have  
successfully considered  
cultural resources

You may proceed  
with assistance



## YOUR TURN

A land user has asked you to design and lay out a farm pond. Follow the squares to protect cultural resources as you carry out your assignment.  
Given: Cultural resources are in the area.



## FEEDBACK

To see how well you did, compare your moves with the ones on the next page.

**START HERE**



DETERMINE IF SCS ACTIVITY COULD AFFECT CULTURAL RESOURCES	
NO	YES
	Pond installation will affect cultural resource.



CULTURAL RESOURCES ARE IN THE AREA	
NO	YES
	Determined that cultural resources are in area by checking: 1. Cultural resource file 2. Previous farm plan 3. With cultural resource specialist 4. With SHPO & others 5. Site location in field



RECOMMEND ALTERNATIVE PRACTICES TO AVOID ADVERSE EFFECTS	
WILL EFFECTS BE AVOIDED?	
NO	YES
	Redesigned pond location to avoid cultural resource



**POP QUIZ**  
**GM 420, 401.20**

Pond installation is a land modification activity.



**FIELD CONGRATULATIONS!**

You have successfully considered cultural resources

Proceed with assistance

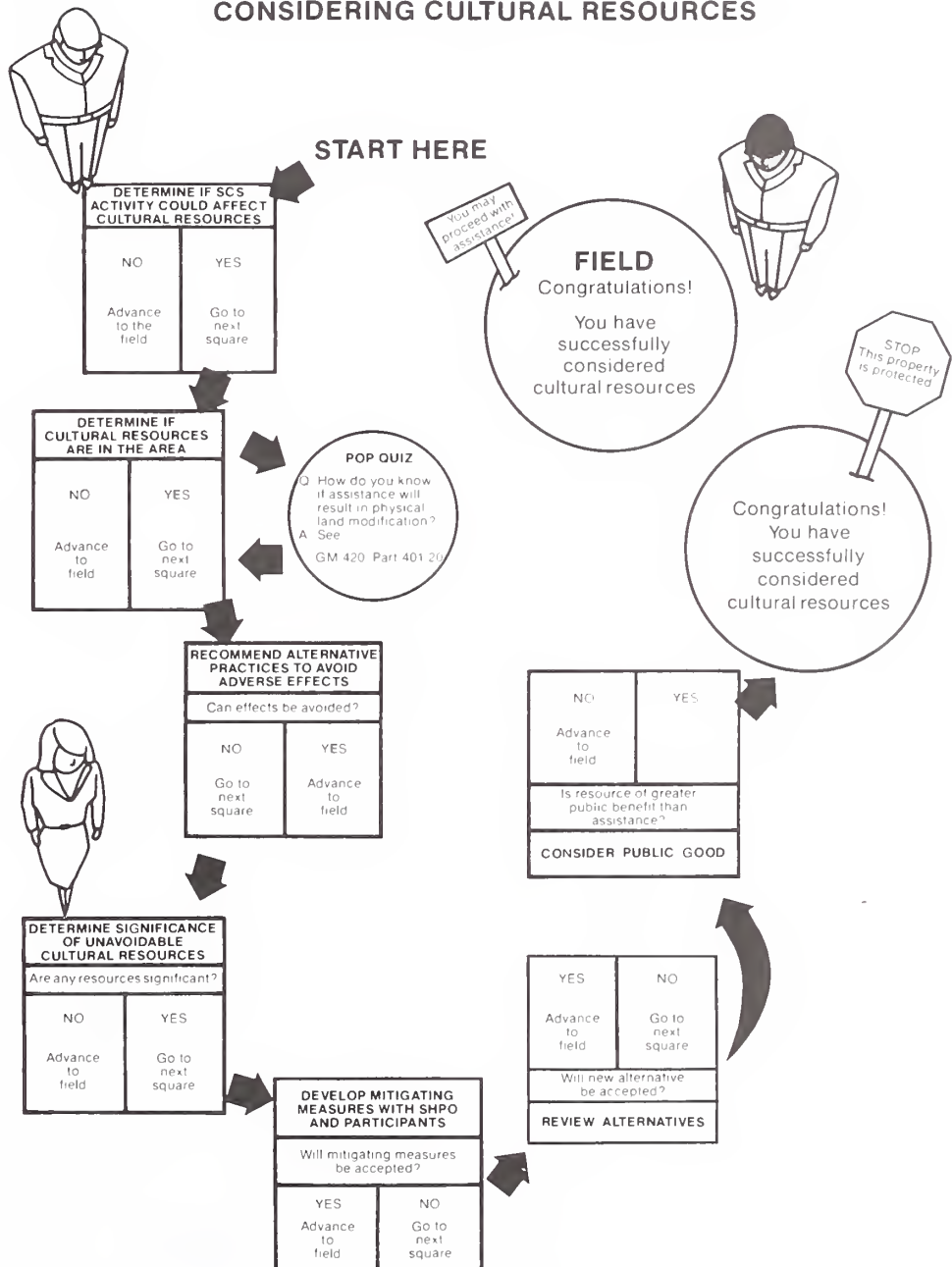
## YOUR TURN

A land user has decided to install a broad based terrace system.

Given: Significant cultural resources are in the field area.

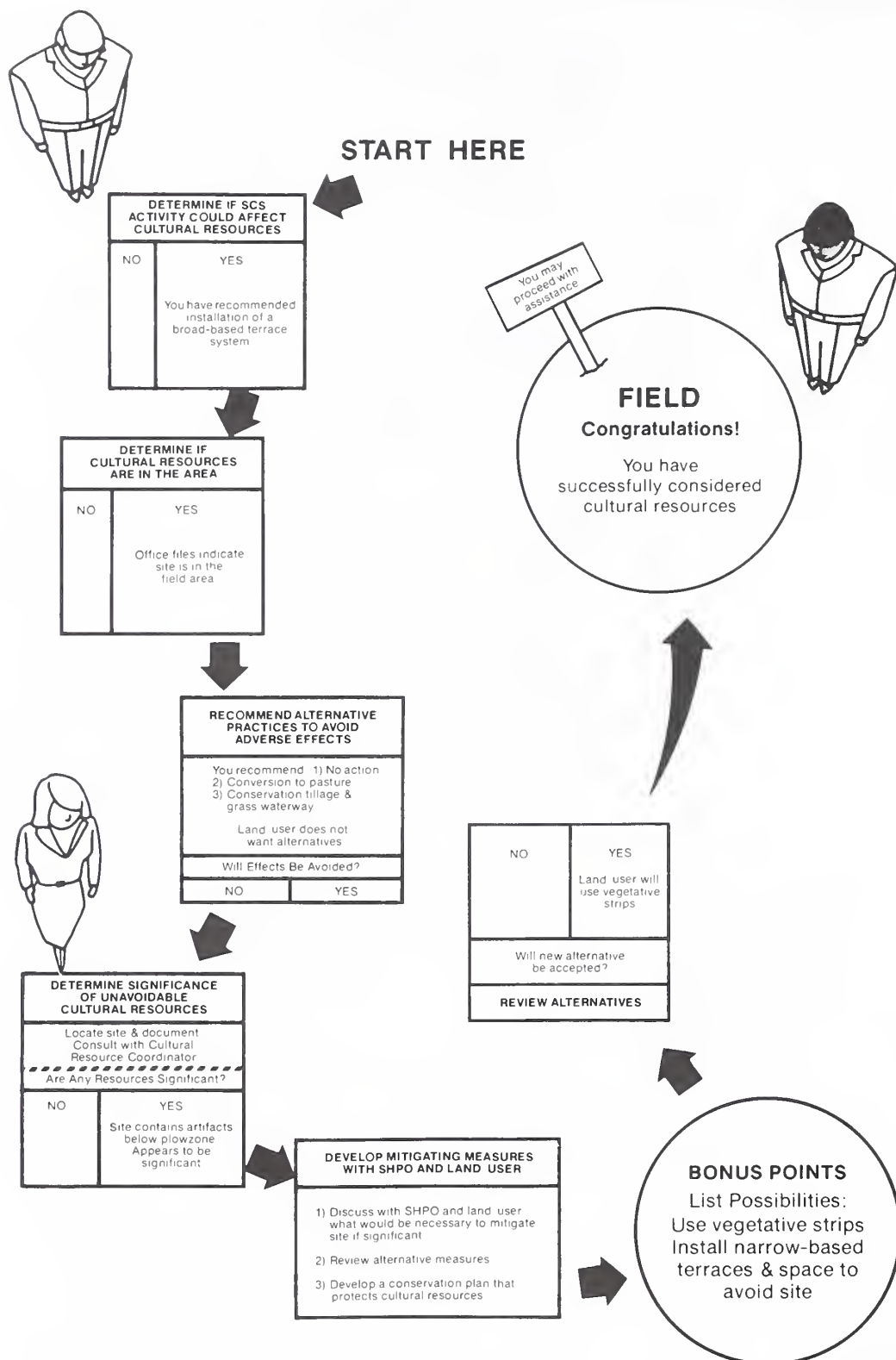
Follow the squares to protect cultural resources as you carry out your assignment.

### CONSIDERING CULTURAL RESOURCES



## FEEDBACK

Compare your plan with the one on the next page.



Enough fun and games—back to work.

## YOUR TURN

Try this one more time. Describe the five broad steps for considering cultural resources in conservation planning.

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## FEEDBACK

Compare your answers with those on page II-6. Was it easier this time?

## REMEMBER: CONTINUE PROTECTION OF CULTURAL RESOURCES DURING IMPLEMENTATION

SCS responsibility for protecting cultural resources does not end when conservation and project plans are completed. Cultural resources that were not located during cultural resources reviews or surveys may be recognized during the activity. This possibility is especially likely for buried archeological sites, which are often difficult to find during surveys. Module 6 will describe how to protect cultural resources during implementation.

The steps described above represent SCS policy and procedures for protecting cultural resources. This policy is required by Federal historic preservation laws and sometimes by state and/or local historic preservation laws as well.

## SOURCES OF INFORMATION AND ASSISTANCE

The SCS cultural resources coordinator in your state is your first source of information and assistance. You should check with your coordinator to determine if there are any special historic preservation laws for your state. Your coordinator will also help you contact the SHPO and local specialists. [Note: The cultural resources coordinator is the SCS technical contact who will interpret cultural resources rules and regulations, help implement them into SCS operations, and serve as a liaison, when necessary, with the SHPO or other cultural resources specialists. A cultural resources specialist, as defined by Federal guidelines, is an individual with academic and practical training in historic preservation. This could be an archeologist, historian, architect, etc.]

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## SUMMARY

Cultural resources are protected best by considering them early in the planning process. GM 420, Part 401 outlines SCS policy and procedures for protecting cultural resources. The process involves the following steps:

1. Determine if the action has the potential to affect cultural resources.
2. Identify any cultural resources in the conservation planning or project area.
3. Avoid adverse effects to cultural resources.
4. Determine if cultural resources which cannot be avoided are significant. (This determination is made by cultural resources specialists.)
5. Develop agreeable mitigation measures with the SCS state cultural resources coordinator and involved parties if an action negatively affects significant cultural resources.

## THIS CONCLUDES MODULE 2

Run around the block a couple of times and then begin Module 3—Identifying Cultural Resources.

## Lagniappe—just because it's interesting . . .

### Pebble Tools

If a man knows the trick, he can pick up a certain kind of water-worn pebble or cobble, strike it a few times with a hammerstone, and make it into a useful tool for chopping. Pebble tools of this kind were among the earliest created by men, and they have been found by the ton on the surface of the ground in certain parts of Alabama.

Did recent Indian hunters knock out these artifacts for one-time or emergency use? Or were the choppers made a very long time ago by men whose tool kit was very, very simple? These questions occurred to archaeologists, both amateur and professional, as they encountered thousands of rounded stones that had distinct chopping or cutting edges. Often the stones looked very old because they had weathered deeply. Always they resembled tools found in the Old World which were known to be very ancient. However, there seemed to be no way to discover the exact age of the Alabama artifacts. Even when the tools were found buried in the earth, luck has not been with the diggers. So far, dating has been uncertain or impossible.

As a result, a fascinating mystery remains unsolved. Some archaeologists suspect that the pebble tools are evidence that men who did not know how to make stone projectile points lived in America before the days of the big-game-hunting Paleo-Indians. Other archaeologists think the pebble tools may have been made in a hurry by much later people who regarded them as expendable. Whatever the true explanation turns out to be, interest in the tools is considerable in Alabama and elsewhere, and the Alabama Archeological Society, University of Alabama, 2602 Green Mountain Road, Huntsville, Alabama 35803 can tell interested persons where examples of the artifacts may be seen.

Franklin Folsom and Mary Elting Folsom,  
*America's Ancient Treasures*, Rev. ed., University of  
New Mexico Press, Albuquerque, NM, 1983, pg. 232.







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# MODULE 3

## USING EXISTING INFORMATION TO IDENTIFY CULTURAL RESOURCES

To protect cultural resources, you need to know where they are. This module helps you find them.

### OBJECTIVES:

When you have completed this module, you will be able to:

1. Conduct a cultural resources review.
2. Develop and maintain an information file for use in determining the presence of cultural resources.
3. List agencies, organizations, and specialists who will assist you in meeting cultural resources responsibilities.

**Start your audiovisual equipment for Module 3.**

In Module 2, you saw the steps involved in considering cultural resources in conservation planning. This module begins Step 2.

Remember the steps . . . ?

**Step 1**

Determine if SCS action has the potential to affect cultural resources.

**Step 2**

Determine if there are cultural resources in the conservation planning or project area.

**Step 3**

Avoid adverse effects on cultural resources.

**Step 4**

Determine if cultural resources are significant when adverse effects cannot be avoided.

**Step 5**

Develop mitigation measures with your SCS state cultural resources coordinator and involved parties if actions adversely affect significant cultural resources.

If the conservation practice or project could affect cultural resources, you must now find out if there are any cultural resources in the area. To find out, first you need to conduct a cultural resources review.



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## ***Definition***

CULTURAL RESOURCES REVIEW: AN EXAMINATION OF CURRENT INFORMATION TO IDENTIFY CULTURAL RESOURCES THAT ARE, OR MAY BE, IN AN AREA TO BE IMPACTED BY AN ASSISTANCE ACTIVITY.

## **HOW DO YOU CONDUCT A CULTURAL RESOURCE REVIEW?**

You begin a cultural resources review by defining the area to be affected by the SCS activity and the kinds of impacts which will take place. The area which will be impacted would not only include the actual construction areas, but areas such as rights-of-way for vehicle access and borrow pits. Check conservation plans, detailed drawings, plan maps, and so forth. Consult with engineers and planners to make sure you understand the area that will be disturbed or inundated and the types of impacts. Not all of these effects happen at the time of construction. For example, if a project includes development of recreation facilities, you must consider how the planned recreation will affect the area. The effects to cultural resources of walking on a marked trail in a wooded area are considerably less than those of riding an off-road vehicle or even a horse in the same area.

Once you have identified the area and kinds of impact, you can begin to gather information on the cultural resources in the area. The first stop is the National Register of Historic Places (National Register), a list of nationally important cultural resources organized by state. The portion of the list that covers your district will be provided by your SCS state cultural resources coordinator.

The presence of a site listed on the National Register in a SCS Conservation area means that you need to make a special effort to protect the resource.

## ***Important***

THE NATIONAL REGISTER IS NOT, HOWEVER, A COMPLETE LIST OF CULTURAL RESOURCES. THE SOURCES THAT FOLLOW WILL HELP YOU IDENTIFY OTHER RESOURCES.

## **State Historic Preservation Office**

A helpful source of information is the State Historic Preservation Office (SHPO). The SHPO is the contact point for Federal agencies evaluating cultural resources (which can also be referred to as historic properties) on projects and often serves as a clearing house for cultural resources information in the state. A state may have a state register which lists sites that meet criteria set by the state; these may or may not be on the National Register. It cannot be stressed enough that the SHPO is one of the most important sources of information. Frequent consultation between the SCS state cultural resources coordinator and the SHPO can produce timely advice and facilitate the whole review process.

Many state governments have state archeologists whose offices are the official repositories for all site data for the State; or the responsibility may be divided between the state archeologist and the SHPOs.

It is important to know how the information is kept in your state. Wherever it is kept, sites are usually recorded on USGS quadrangle maps.

You will find that the information on site significance in the state cultural resources inventories varies. In some cases the significance of cultural resources has been determined. In other instances, the lists will only note that some kind of cultural resource, of unknown significance, is present. Once a site has been recorded, be prepared to keep this information confidential. Be aware that data on SCS software/CAMPS comes under Department security provisions and that site records are exempt from the Freedom of Information Act. Looting and general vandalism of public and private property have made such requirements necessary. Only authorized individuals should have access to locations or information regarding a site for both the protection of the historic properties and the private landowners.

## YOUR TURN

Think back to Module 2 and then check the correct answer.

To determine if a SCS action has the potential to affect cultural resources, you can consult

1. The National Register of Historic Places. ☐
2. GM 420, Part 401. 20, Assistance Activities to Be Considered by SCS. ☐
3. The most recent cultural resources review. ☐
4. Your state conservationist. ☐

## FEEDBACK

If you checked 2, you are correct.

## YOUR TURN

An examination of current information to identify cultural resources that are, or may be, in an area to be affected by an assistance activity is called

\_\_\_\_\_

FEEDBACK

If you answer is *cultural resources review*, you are correct.

YOUR TURN

When conducting a cultural resources review, what is the first information source you should consult?

FEEDBACK

Your answer should be — The National Register of Historic Places.

YOUR TURN

What is an important thing to remember about the National Register of Historic Places?

FEEDBACK

Did you say the National Register of Historic Places does not list all resources? Right on!

YOUR TURN

What are the next major sources of information for a cultural resources review?

FEEDBACK

The State Historic Preservation Officer (SHPO) and State Archeologist.

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## **THERE ARE ADDITIONAL SOURCES OF INFORMATION —READ ON**

In addition to information about cultural resources in the SHPO or state archeologist offices, information may be available from local universities, museums, and archeological and historical societies. These sources often have information that is not included in the official files. They are normally limited to a small geographic area but should be consulted where available.

It should be pointed out that not all state archeologists, museums and universities are willing to give out this information to everyone who just walks in off the street. Their reluctance is tied to the effort to stop unethical people from vandalizing sites for the artifacts they might find.

If you have this problem, tell your SCS cultural resources coordinator, who will work with the cultural resources specialist at the National Technical Center. Perhaps introduction agreements and safeguards can be worked out.

### ***Publications***

Even if cultural resource lists do not show that cultural resources have been recorded in your area, there may be useful information about *potential* (unknown) resource locations. Local pamphlets and books on archeology and history are useful. These are often available at your local library.

### ***Environmental Impact Statements***

Environmental impact statements or reports on cultural resources surveys of nearby projects are also useful sources of information on possible cultural resource locations. In addition to overviews of local history, the reports on cultural resources surveys in nearby areas often suggest the types of locations that are likely to have archeological sites. When this information is available, you can compare your plan area with the descriptions of areas which had or were said to be likely to have cultural resources sites. (Environmental impact statements and reports on cultural resources surveys are usually available from your SHPO, who routinely reviews them.)

### ***Agency Sponsored Studies***

Useful reports may be on file with the agencies who sponsored the studies. Examples include those by highway departments, the U.S. Army Corps of Engineers, the Bureau of Land Management (BLM), and land development companies.

## ***Individuals and Groups***

Interviews with people who know the local history can be useful. Present and past landowners and land users can be good sources of data. Also, museum curators or archeologists and historians from local universities are helpful. Local artifact collectors are good sources of information; you can meet them by attending meetings of local societies. Most states have amateur archeological societies. Your SCS cultural resources coordinator, NTC cultural resources specialist, or the SHPO can help you find out if there are local chapters near you.

Many of these groups publish newsletters and journals with important information. Even newspapers provide information on new discoveries.

## ***Old Documents***

Other sources of information you can use include collections of old photographs kept at local historical societies. Highway departments often have plans and photo archives of old road development projects which can help you determine if cultural resources are in your plan area. Aerial photos may also show evidence of old roads, railroads, mines, covered wagon trails, and Indian burial mounds and villages.

Maps made during the official government land surveys during the mid-1800's (Government Land Office—GLO) are excellent sources of historic information that are available from state land officers or the BLM.

## ***Helpful Hint***

At this point, you may be thinking, "Who has time to do all this leg work?" This could be a good job for SCS volunteers. Go find yourself a volunteer (perhaps at one of the local amateur societies).

## **YOUR TURN**

List sources of information you can use to conduct a cultural resources review.

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## **FEEDBACK**

Check your answer by comparing it with the list shown on page 9 of this guide.



**Finger-tip  
Information**

It is difficult to check all these sources for every SCS action. To save time, you should develop and keep current a cultural resources information file in your office. Every field and planning office should have a file of this kind. At the least, the file should include the National Register of Historic Places and state and local registers. A good way to have this information at your finger tips is to plot it on a map of your area. Show on the map all known cultural resources locations and areas most likely to have sites. As you learn of others, bring your map up-to-date.

You can also collect newspaper clippings and articles as they appear. If such a list is updated quarterly, it and the current NRHP list may be sufficient for record checking. Find out what your state office procedures are.

**YOUR TURN**

Describe how you might set up an information file for your office.

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**FEEDBACK**

If you said that you plot all the known and likely site areas on a map, using the National Register, state and local lists, that's a good way to start! Then when SCS activities are planned, the cultural resources review is mostly done.

**QUICK SUMMARY**

In this module you have seen the kinds of information that can be helpful in determining if there are, or may be, cultural resources in your plan area. Page III-9 lists many of the sources. Pause now and look at the list.

**Preview of  
Coming Attraction**

This module covers Step 2 of the 5 steps involved in considering cultural resources in conservation planning, BUT NOT COMPLETELY. In Module 4 we continue with Step 2.

---

## ***Step 2***



Determine if there are cultural resources in conservation or planning area.  
To complete the step you will need to conduct a cultural resources survey.

## **THIS CONCLUDES MODULE 3**

Rest a bit before starting Module 4, Identifying Cultural Resources in the Field.

---

# SOURCES OF INFORMATION FOR CULTURAL RESOURCES SURVEYS

## ***Inventories***

National Register of Historic Places  
State registers of significant sites and all known cultural resources  
Local (county/city) registers of significant sites and all known cultural resources  
Other inventories of cultural resources (universities, museums, archeological and historical societies)  
Local county courthouses

## ***Documents***

Environmental Impact Statements  
Cultural resources reports

## ***Interviews***

Past and present landowners and land users  
Museum curators  
University historians and archeologists  
Local amateur artifact collectors (local archeological societies)

## ***Published Sources***

(available from libraries and local historical and archeological societies)  
Books  
Pamphlets  
Journals and newsletters

## ***Other Sources***

Photo archives  
Aerial photos  
Newspapers

Lagniappe—just because it's fun . . .



Washington crossing the street

*The Far Side*

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## Lagniappe—just because it's interesting . . .

### Model Archaeology Program

Anyone who wants to watch a dig—or to do volunteer work in one—may be able to do so in Arkansas.

Arkansas has what is perhaps the best archaeology program in any state or province north of Mexico. The Arkansas Archaeological Survey employs a staff of full-time archaeologists, with one of them attached to each state-supported college and university. This network is salvaging a great deal of valuable information that would otherwise be lost as grading machines turn scores of thousands of acres of land into absolutely level fields. Any farmer or amateur archaeologist who finds material that may be of scientific interest can phone the nearest college, and an expert will normally be out to investigate within 2 hours. In addition, of course, the Archaeological Survey team gathers information from places where roads are being made or foundations dug or artifacts discovered by amateurs.

If a dig is visitable, Dr. Charles R. McGimsey, III, Director of the Arkansas Archeological Survey, at the University of Arkansas Museum, Fayetteville, can send you to it. Or, call the office of the Archaeological Survey in any of the other state institutions of higher learning for the necessary information.

Franklin Folsom and Mary Elting Folsom, *America's Ancient Treasures*, Rev. ed., University of New Mexico Press, Albuquerque, NM, 1983, pg. 219.

Note: For archeological experience near you, check out the *Archaeological Fieldwork Opportunities Bulletin*, published every January by the Archaeological Institute of America, 675 Commonwealth Avenue, Boston, MA 02215.

The elderly man carefully picked his way along the spine of the wind-swept ridge. His two companions stopped to examine a rock outcrop in search of pieces of flint. At thirty-five, he felt tired and was glad of the chance to rest. Squatting down on the grass, he removed a piece of antler from his pouch and used it to pop flakes off of the flint point that tipped one of his darts. Satisfied that it was properly sharpened, he slowly pulled himself to his feet and went to join the others.



Six thousand years later, a man and two women walked slowly along the same ridge. They walked parallel to each other, spaced about five meters apart. Their eyes seldom strayed from the ground surface. One of the women stopped and kneeled on the ground. She examined the tiny flakes left by the man who had been dead for fifty-nine centuries. Satisfied that there were no other human-altered materials nearby, she made some notes and went to join her companions.

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## MODULE 4

# IDENTIFYING CULTURAL RESOURCES IN THE FIELD

**This module describes environmental and manmade features and artifacts which could indicate to you the presence of cultural resources in the field.**

### OBJECTIVES:

When you have completed this module, you will be able to:

1. Define a cultural resources survey.
2. Explain when to conduct a cultural resources survey.
3. Identify and describe survey findings.

**Start your audiovisual equipment for Module 4.**

### *The Fun Part*

Wouldn't it be exciting to discover an ancient Indian village site or a Civil War relic during the course of your work? That could spice up your life a bit and maybe even get your picture in the newspaper. We can't promise that you will discover such wonders; but if you do, this module will help you identify and protect your findings.

The last module discussed inventories, individuals, and organizations that you can consult to help determine if there are any cultural resources in the area to be affected by a SCS activity. However, sometimes these sources will not give enough information for you to know.

In fact, even if the sources you use indicate that a cultural resource may be present, it is still necessary for you to see if it is really there. Inventories may have errors or the resource may have been destroyed by erosion or human activity. You need to go into the field and check for yourself. You can't go out willy-nilly and look. You need to be systematic about it. You need to conduct a . . .

### CULTURAL RESOURCES SURVEY

### *Definition*

A CULTURAL RESOURCES SURVEY IS A SYSTEMATIC EXAMINATION OF THE GROUND SURFACE TO BE AFFECTED BY A CONSERVATION PRACTICE OR PROJECT.



## **Purpose**

ITS PURPOSE IS TO LOCATE AND DOCUMENT THE PRESENCE OF CULTURAL RESOURCES. (SUCH SURVEYS ARE APPROPRIATE PARTS OF AN ENVIRONMENTAL EVALUATION DURING PLANNING.)

## **YOUR TURN**

Check the correct answers.

You cannot rely totally on existing sources of information regarding the presence of cultural resources in an area because:

1. Errors might have been made in the existing inventories. ☐
2. Cultural resources may have been destroyed. ☐
3. Information gathered before 1930 is not reliable. ☐

## **FEEDBACK**

If you checked 1 and 2, you are correct.  
If you checked 1 and 2, you are correct.

## **YOUR TURN**

Give the definition and state the purpose of a cultural resources survey.

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## **FEEDBACK**

Did you get that? If not, reread the definition and purpose shown on preceding pages.

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## HOW IS A CULTURAL RESOURCES SURVEY CONDUCTED?

Cultural resources surveys can be carried out in a number of ways. *The best way to conduct the survey is to walk systematically across the plan area in a patterned way.* It is helpful to mark off the survey area into small parallel units known as transects because it is easier to walk and describe small areas than to tackle big blocks. These units should be small enough for you to see most of the ground surface. However, before you begin looking at a plan area, you need to know what you are looking for.

You need to be able to recognize cultural resources indicators.

## CULTURAL RESOURCES INDICATORS

There are several types of indicators. The most obvious are old buildings and other structures such as bridges. If you encounter them, you should determine their approximate age. If they are more than 50 years old, get help in evaluating them.

Other kinds of indicators are not as easily recognized. Three broad categories of site indicators are environmental, artifactual, and structural remains or features.

## ENVIRONMENTAL INDICATORS

Certain environmental features can be used as indicators of cultural resources. These features may vary from region to region, but there are some characteristics which are broadly applicable.

### *Surface Water*

Locations near various kinds of surface water—such as lakes, streams, drainages, and springs—are preferred places for human settlement because they provide life support in the form of drinking water, food, irrigation, sanitation, transportation, and defense. Living near surface water was especially important for prehistoric societies that could not dig deep wells and that did not have the capabilities of storing water for long periods. Moreover, settings with waterfalls or strong currents were sometimes the basis of historic mills or furnaces and their communities.

Remember, though, that historic sites which relied on well water may be located far from surface water. For this reason, you cannot assume that cultural resources will not be present just because an SCS activity is *not* near surface water. You also should be aware that past water levels and courses may have been quite different from those of the present because of changes made by nature and people. Ancient shorelines and river courses may be far from modern bodies of water. Cultural resources may be found near former water sources.

## YOUR TURN

True or false:

If there is no surface water in your plan area, you need not look for cultural resources there.

True

☐

False

☐

## FEEDBACK

False is the correct choice.

### *Landforms/Soils*

Certain types of landforms are also good indicators of probable cultural resources locations. For example, people are more likely to settle on level ground than on steep slopes.

People also liked to live near caves, terraces, knolls, high bluffs, rock overhangs, and protected covers. Probably the best way to consider terrain indicators is to look at an area and try to figure out where you would like to live.

Soil and vegetation changes or breaks in soil color and vegetation may indicate where human occupation changed the chemical and physical characteristics of the soil. For example, geometric patterns of vegetation and soil variations may indicate the location of old roads, earthworks, foundations, fence posts, and subsurface features. Clumps of trees or dense brush within a cultivated area may conceal an archeological or historic site which was not cultivated because it was too difficult to plow. Historic sites may be indicated by remnants of cultivated plants such as fruit trees, shade and ornamental trees, berry shrubs, and flowers.

Areas with high soil fertility and productivity are also likely locations for cultural resources. Prehistoric agricultural settlements tend to be located in areas with arable soils, which are more easily cultivated than rocky or poorly drained soils. Historic settlers also preferred more fertile soils for farming and settlement. For early prehistoric hunters and gatherers, areas which provided wild plant foods and game animals were favored. Places where different plant and animal communities border one another, such as a forest edge, offer a variety of these vital resources and are also favorable locations for human habitation. These areas, known as ecotones or ecosystems transition zones, tend to contain more archeological sites.

### *Mineral Resources*

Special deposits of mineral resources may be another focus of human settlement or use. These deposits include: clay used for making ceramics, outcrops of particular types of stone used in the manufacture of stone tools or jewelry, and other precious metals of value to people.

**YOUR TURN**

What are two environmental indicators common to your area?

**FEEDBACK**

Perhaps you have knolls or terraces along streams that were good locations for Indian villages, or fast moving streams for flour mills, or ornamental vegetation in a pattern that outlines an old homestead.

**ARTIFACTS**

The presence of certain environmental components may indicate a site whereas the presence of artifacts marks a cultural resource site.

***Definition***

ARTIFACTS ARE OBJECTS MADE OR ALTERED BY HUMANS FOR UTILITARIAN, ORNAMENTAL, OR RELIGIOUS PURPOSES.

Artifacts can be divided into two basic categories: prehistoric and historic. Prehistoric means before written records existed in the area. Historic means during the time of written records. In North America, the time of written records begins about 1500 A.D. with the arrival of European explorers. However, some parts of the country were not visited by European explorers until much later. Written records were not in existence in these places for another 100 or 200 years.

Prehistoric Example—Chipped stone tool  
Historic Example—Nail

Keep in mind, however, that some artifacts which are considered prehistoric were still in use during the early historic period in North America. For example, stone arrowheads were still being used by Indians after Europeans came. Hearths made of stone are still in use.

**YOUR TURN**

Define artifacts.

## FEEDBACK

Artifacts are objects made or altered by humans for utilitarian, ornamental, or religious purposes.

## YOUR TURN

What is the difference between historic and prehistoric artifacts?

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## FEEDBACK

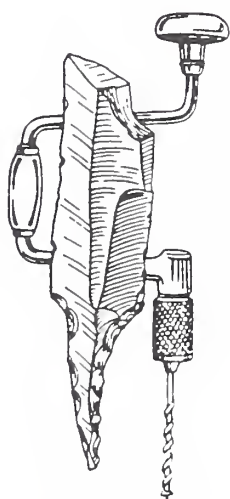
Generally speaking, prehistoric artifacts were made or altered before the time of written records. Historic artifacts were made or altered after the time of written records.

## Prehistoric Artifacts

How do you recognize prehistoric artifacts? You will get actual experience in identifying artifacts in Module 8—field trip, but for now a word description of chipped stone tools may be helpful.

## Chipped Stone Tools

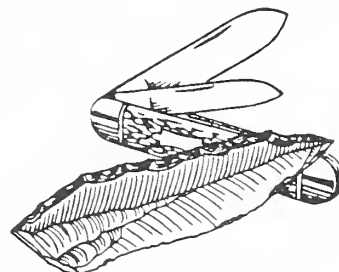
Prehistoric chipped stone tools are usually flat-sided, sharp-edged, and made of flint, chert, jasper, or quartz. Chipped stone tools can be distinguished from natural stones by the presence of evidence that flakes have been removed in regular patterns. Projectile points (arrowheads, spear points, and dart points), knives, scrapers, and drills are all types of prehistoric stone tools. The illustrations that follow show prehistoric artifacts and their modern-day counterparts.



Drill or Awl



End-Scraper on a Blade



Backed Glade

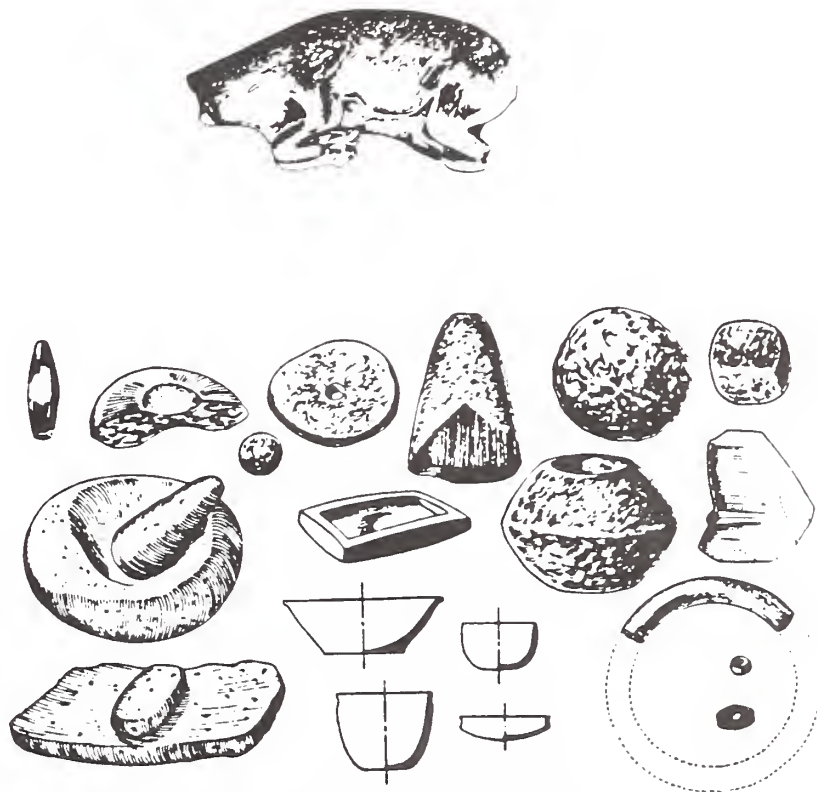
From PREHISTORIC MEN, SEVENTH EDITION by Robert J. Braidwood, illustrated by Susan Richert Allen & Philipp Herzog. Copyright (c) 1964, 1967 by Newbery Award Records, Inc. Reprinted by permission of Random House, Inc.



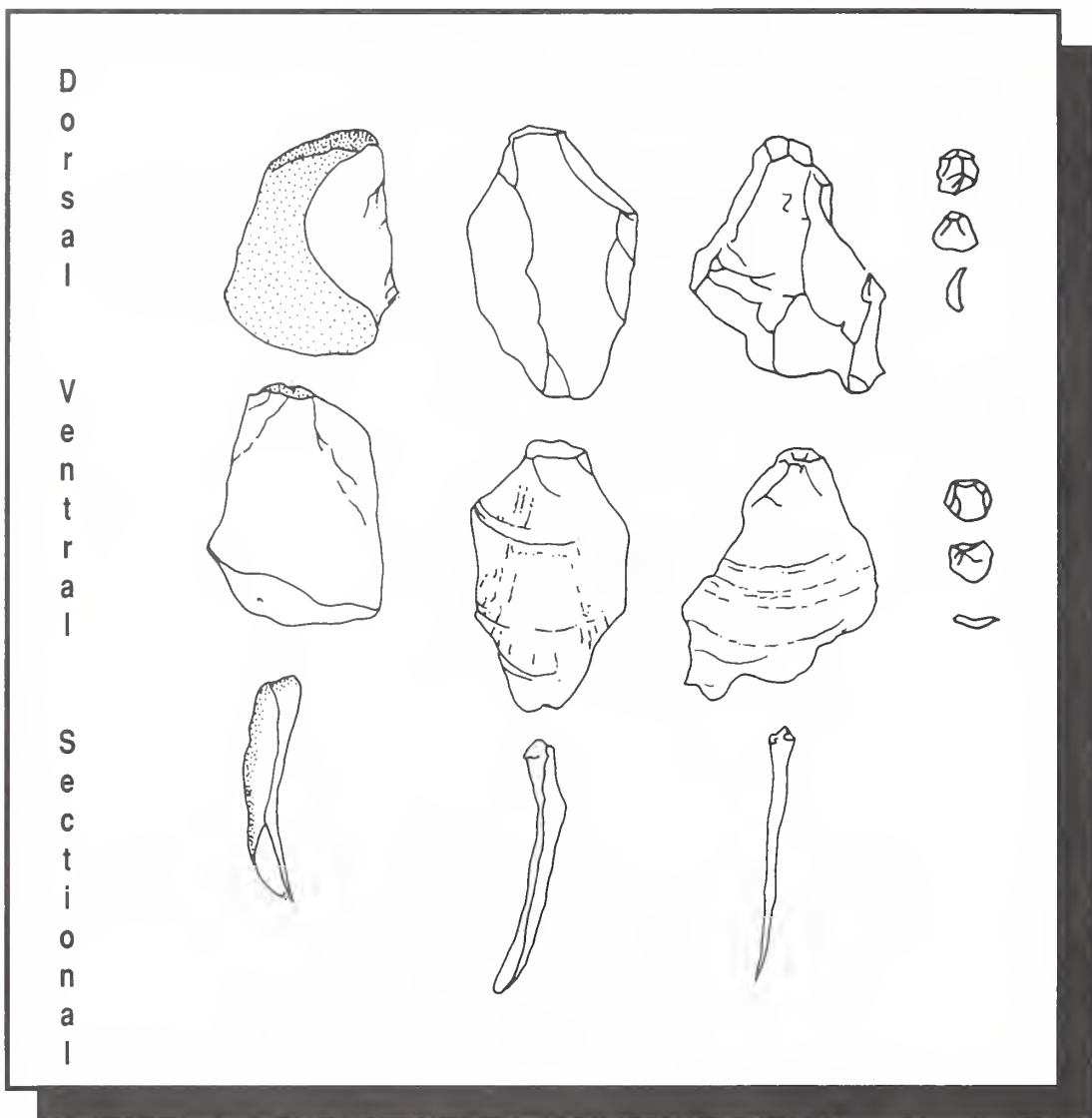
Making stone tools produces waste, called flakes or chips. These flakes are also artifacts, and they are found in abundance at some archaeological sites. Flakes are usually thin and sharp with feathered edges. On one end, there is a bulge known as the “bulb of percussion” that is just below the point that the stone was struck to remove the flake.

### Ground Stone Objects

Some stone tools were made by grinding, pecking, and/or crushing. Tools used to grind corn or other foods are called manos, metates, mortars, and pestles. They are common types of ground stone tools. “Fancy” stone artifacts, such as pipes and pendants, are uncommon but spectacular cultural resources.



## Ground Stone



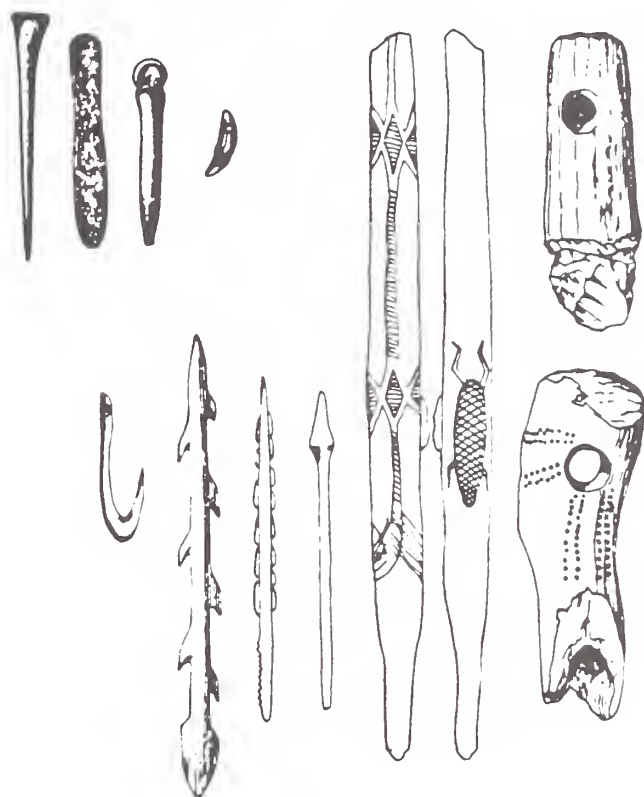
## Flakes

Flakes are grist for the archaeological mill. They are little windows into the prehistoric world which provide a glimpse into the patterns of past human activity. Flakes reveal process as well as product and lead us to a more complete understanding of not only the product but of the human patterns and activities that produced the product.



### ***Bone and Shell Artifacts***

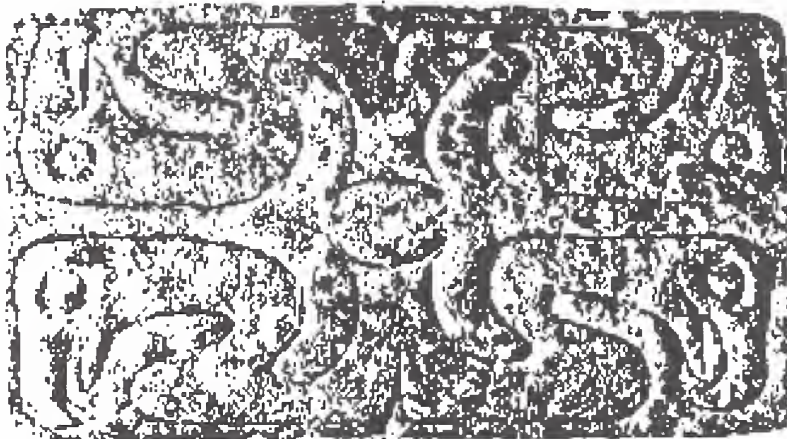
Organic material such as bone and shell may also be present at archaeological sites. Bones may be human or animal. Shell heaps may be remnants of past holiday feasts enjoyed by people of long ago. Tools or ornaments of shell and bone such as harpoons, awls, and beads may also be present.



## Bone and Antler

## ***Metal***

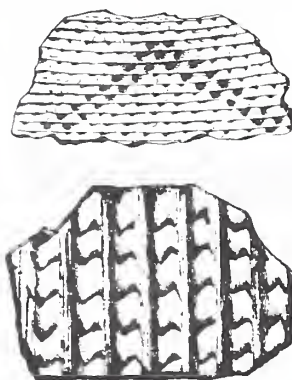
Artifacts of native copper such as plates, stamped/cut figures, and bells are exotic items found in various parts of the United States.



## ***Ceramics***

Fragments of ceramics, called sherds, are also very good indicators of sites. There are many varieties of prehistoric ceramics. Some are soft and crumbly, which means that they were not well-fired. Others are hard, polished, and/or glazed. Some ceramics were decorated with painted motifs, others by scratching or stamping. Some sherds are undecorated.

**Sherds = Potsherds = Shards**



## YOUR TURN

Name three categories of prehistoric artifacts.

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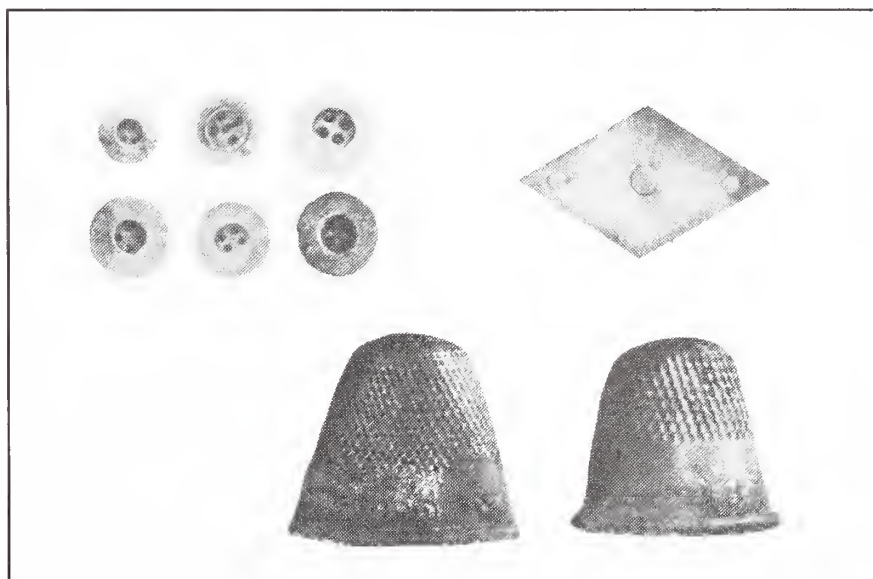
## FEEDBACK

You are correct if you listed three of the following.

5. Metal artifacts.
4. Groundstone artifacts.
3. Ceramics.
2. Bone and shell artifacts.
1. Chipped stone tool artifacts.

## Historic Artifacts

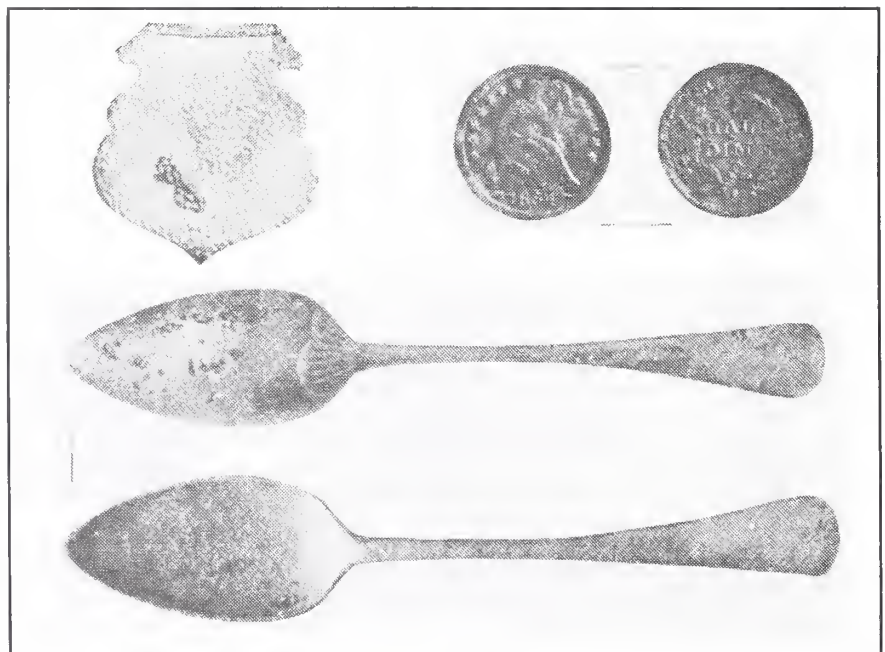
Historic artifacts may be easier to recognize than prehistoric artifacts because they are usually manufactured items that are similar to things we use today. If you see linear arrangements of natural stone or fragments of shaped stone or brick, examine them carefully, as they could be the remains of houses or other structures. Pieces of wooden beams and siding tell the same story. You may be standing in the parlor of a long-ago farmstead if you see buttons and jewelry.



Bones that show cut marks may tell of meals long forgotten. Other "trash" items from settlement might include broken bits of glass windows, bottles, jars and containers, or sherds from dishes, tiles, toys, and pipes.



Metal often marks the spot of farming or industrial activity. Metal can be present at home sites as well. You might see such things as fragments of machinery, nails, utensils, cookware, gun parts, and coins.





## YOUR TURN

List three categories of historic artifacts.

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## FEEDBACK

Building materials, "trash" items, and metal objects are three things you might have listed.

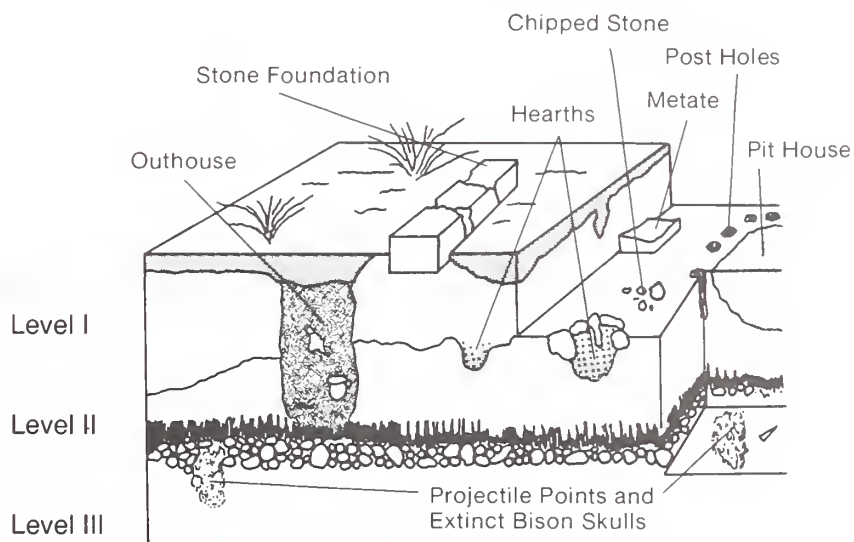
## ARCHEOLOGICAL STRUCTURES AND FEATURES

In addition to artifacts from prehistory and history, features and structures can be indicators of cultural resources. Features are the physical remains of changes made by people in or on the ground. These are the cultural resources from which we often learn the most and are also the ones most easily destroyed. They are the hardest to recognize, because they blend into the landform. Root cellars, campfire remains, burials, and trash disposal areas such as wells, pits, and middens are examples.

### *Important*

ARTIFACTS AND FEATURES MUST NOT BE DISTURBED UNTIL THEY ARE PROPERLY RECORDED.

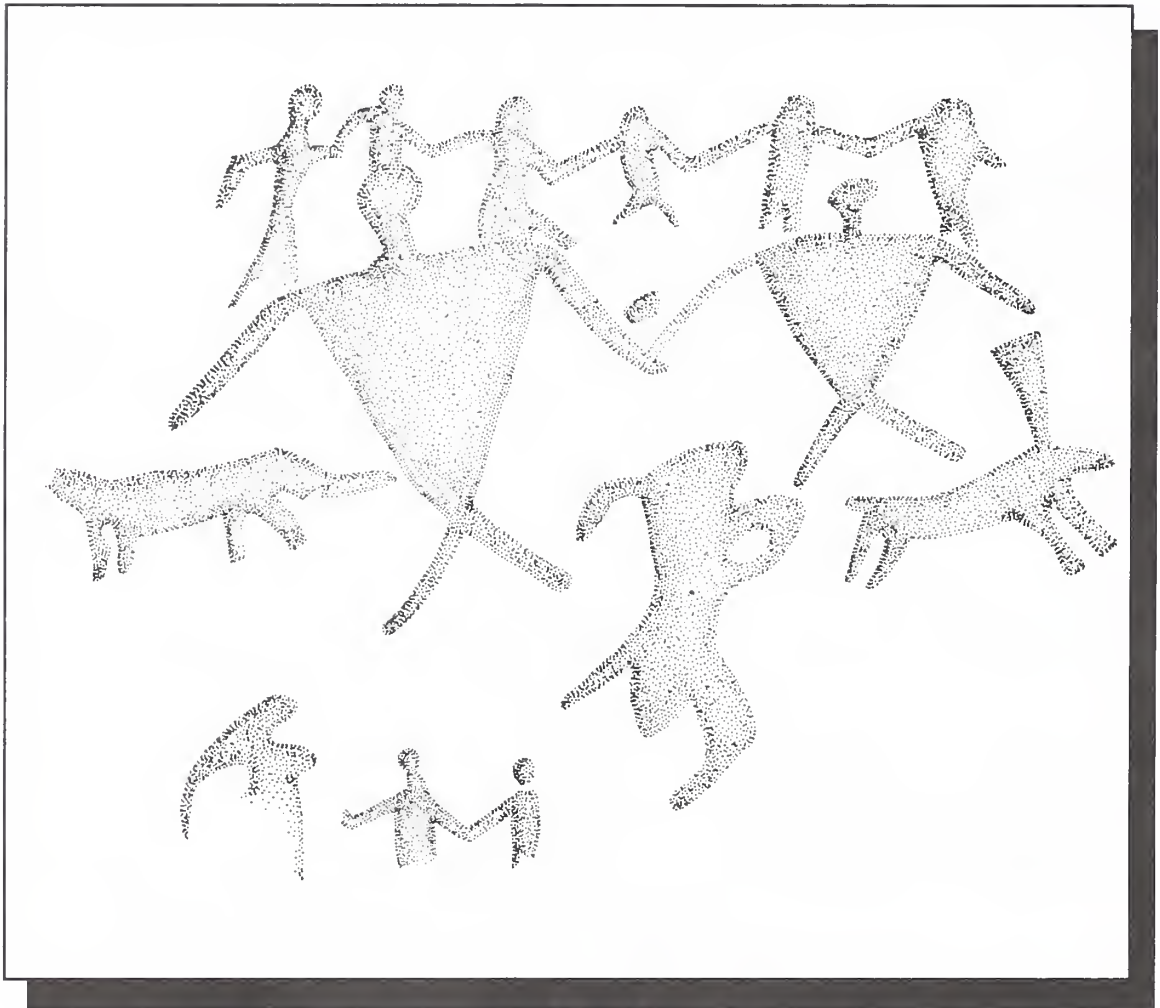
## ARCHEOLOGICAL FEATURES



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Included in this combined class of indicators are earthworks such as mounds, dikes, embankments, ditches, depressions, house pits, dams and fortifications. Also included are tombstones, stone or concrete foundations, and alignments of natural rocks and boulders such as tepee rings, fish weirs, corrals, and shrines.

Carved or painted rock art are features of particular interest.



Artifacts of a moment ago, yesterday, or a thousand years ago have a great story to tell us. When we fail to save important artifacts and information from the past, we needlessly destroy a unique opportunity to learn more about ourselves—our past accomplishments and mistakes.

YOUR TURN

Check the correct category for the following artifacts.

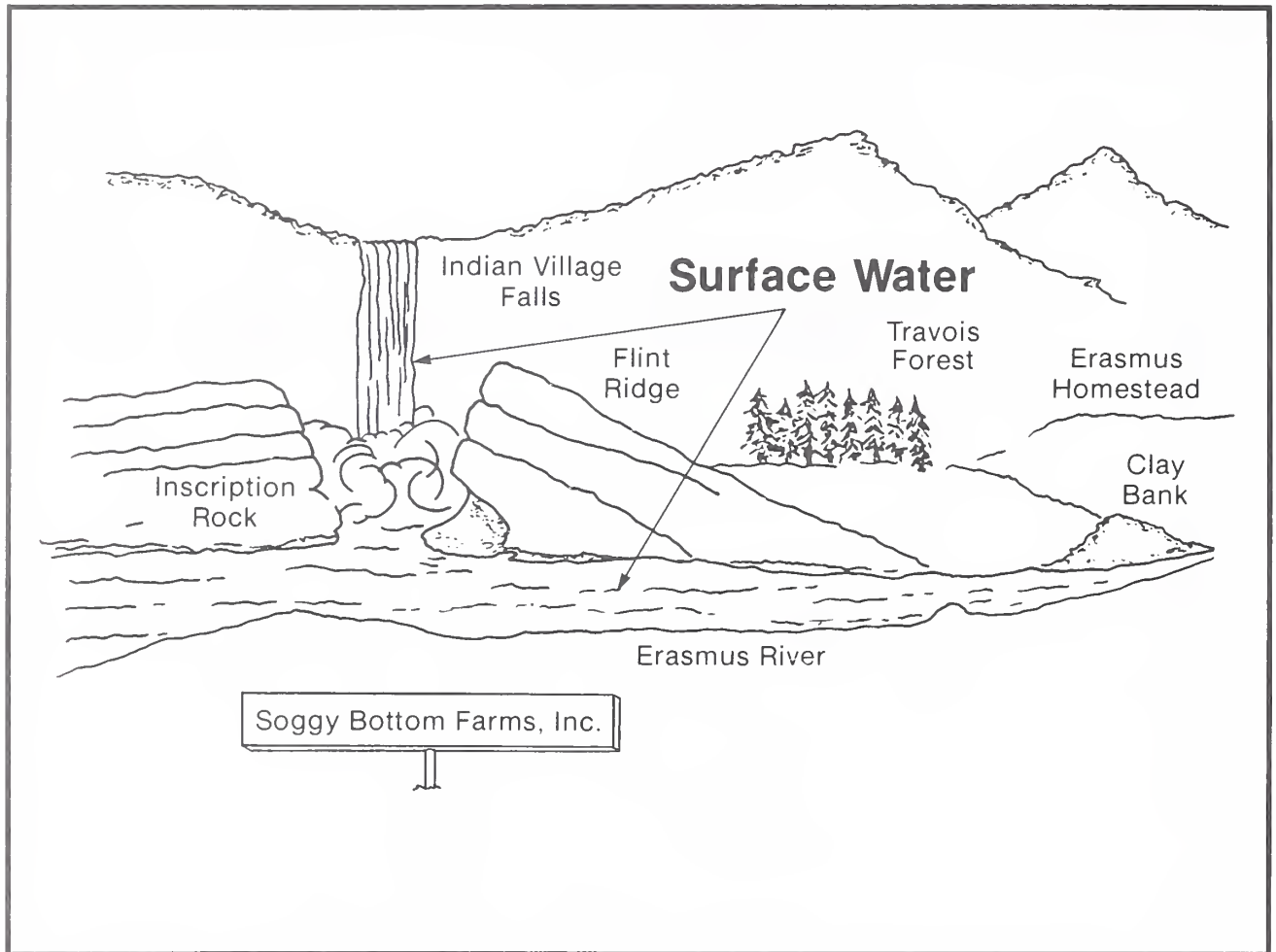
	Historic	Prehistoric
1. Window glass	<input type="checkbox"/>	<input type="checkbox"/>
2. Manos	<input type="checkbox"/>	<input type="checkbox"/>
3. Spear points	<input type="checkbox"/>	<input type="checkbox"/>
4. Nails	<input type="checkbox"/>	<input type="checkbox"/>

FEEDBACK

You've got the hang of it if you indicated that window glass and nails are historic artifacts and manos and spear points are prehistoric.



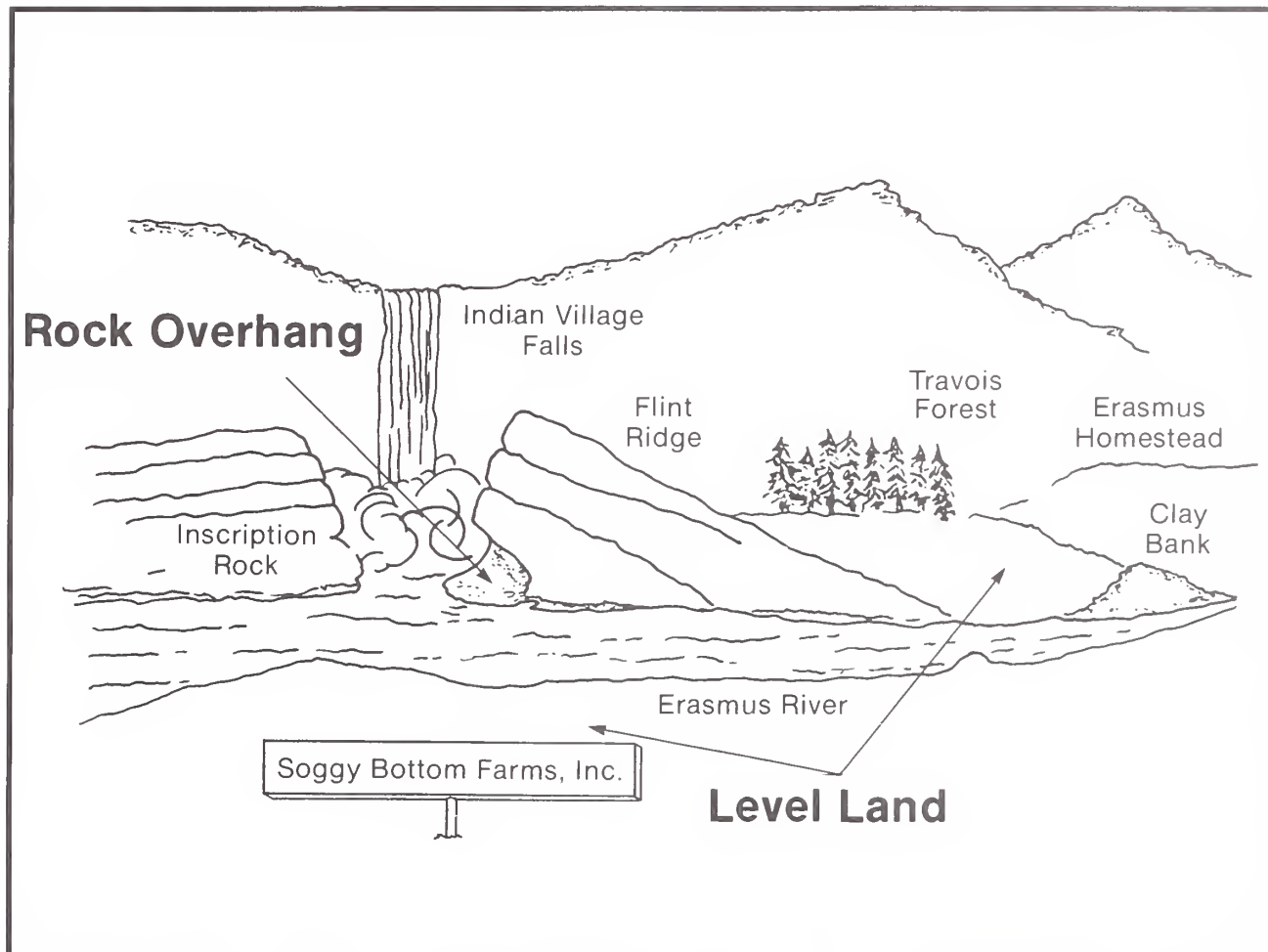
To review the process of a cultural resource survey, let's visit an imaginary SCS plan area. We'll walk in transects over the area, remembering the cultural resources indicators we've learned about. Will we find cultural resources here to be protected?



## Cultural Resource Indicator

### SURFACE WATER

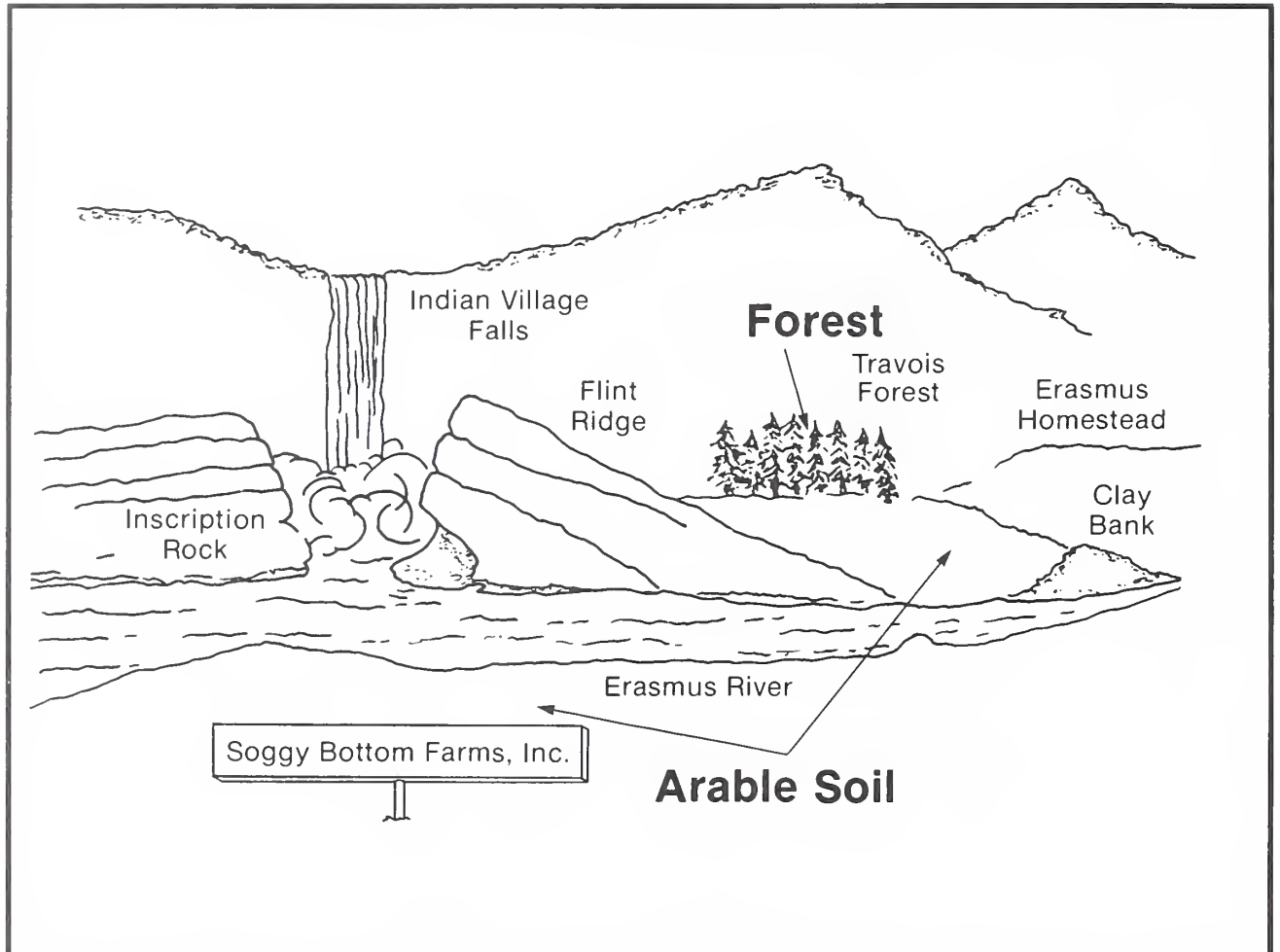
The first thing we notice in our survey is SURFACE WATER. Ah ha! Cultural resource indicator number one—people like to settle near water. Whether used for drinking, transportation or a source of power, surface water is important. With this indicator in the back of our minds, we'll look further.



## Cultural Resource Indicator

How about landforms? There's an overhanging rock to offer protection. A terrace of level ground offers high and dry area. Hey, this looks promising! What are other indicators we can look for?

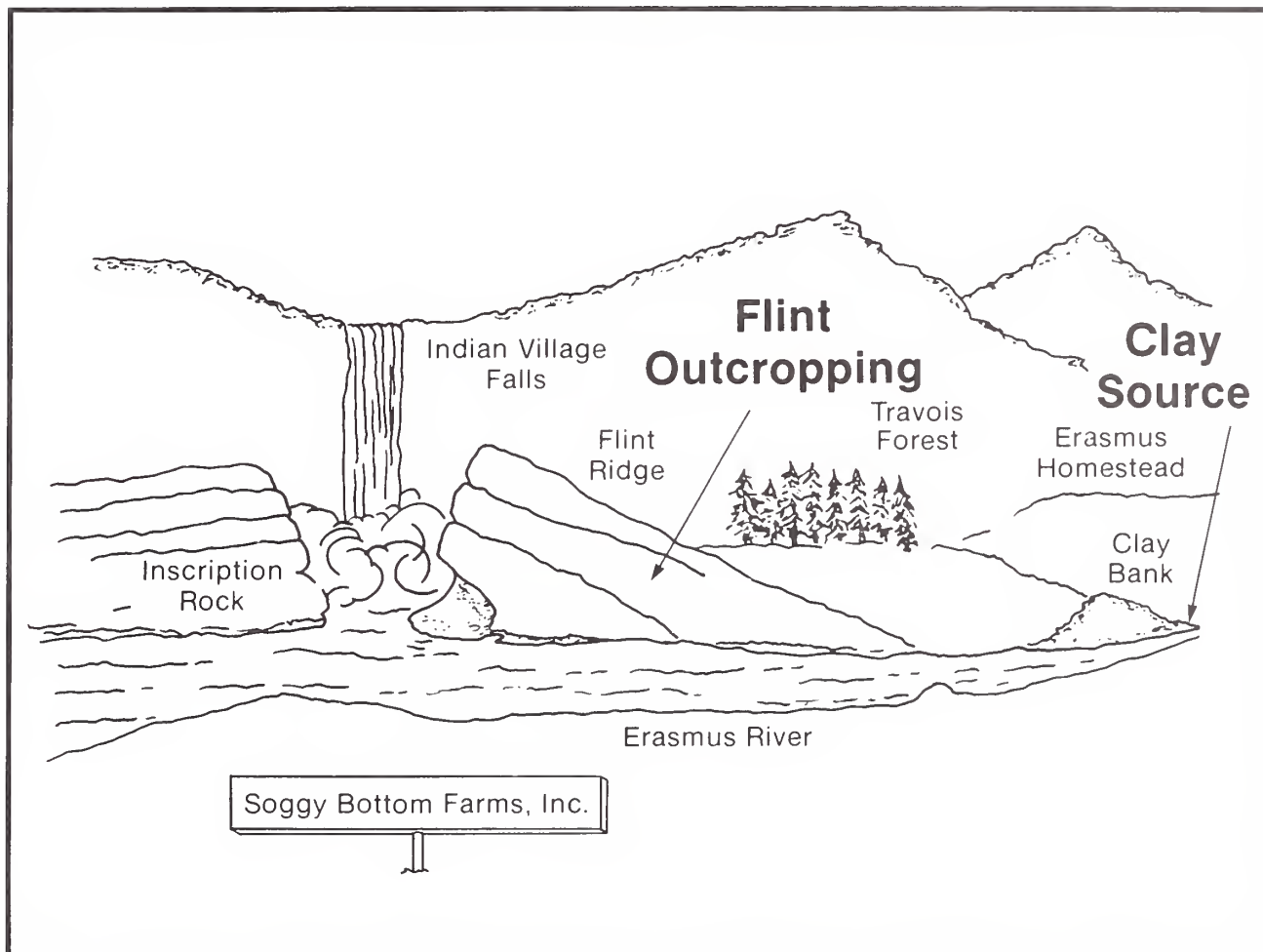
### LANDFORMS



## Cultural Resource Indicator

### SOIL AND VEGETATION

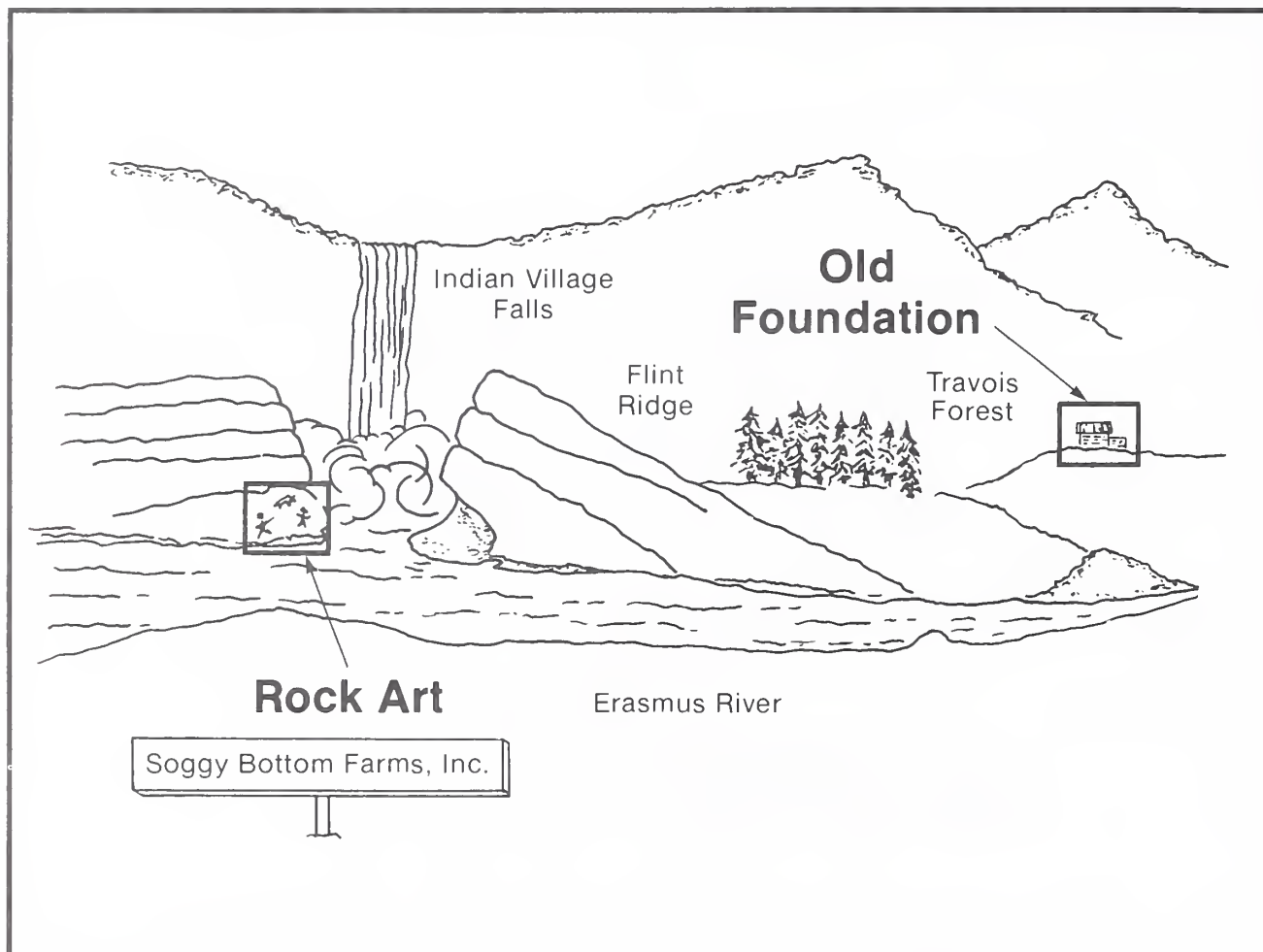
Let's examine the soil and vegetation. There's the flat plain bordered by a dense forest—an ecotone area—which is a good condition for human habitation. The soil is fertile and suitable for farming. If ancient people did not settle here, they should have!



## Cultural Resource Indicator

### MINERAL RESOURCES

Mineral resources were used for making tools, pigments, and even building materials. Natural clay deposits were ideal for all types of pottery. Flint Ridge could be a source of raw materials for stone tools. The clay bank could provide a source for ceramics or plaster materials for floors and walls. With all of these indicators, we can begin a serious look for artifacts.



## Cultural Resource Indicator

### ARTIFACTS

Examining the cliffs around Inscription Rock, we see figures carved and painted on the ledges and rock faces. Let's not forget the old Erasmus homestead of the early 1800s. The stone foundations can still be seen in the grass. These are features. The broken pieces of ancient pottery around the clay banks area and the fragments of purple bottles and iron around the Erasmus Homestead are all artifacts.

You can see by the indicators in our imaginary survey the kinds of things to look for in your real-life cultural resources surveys.

## YOUR TURN

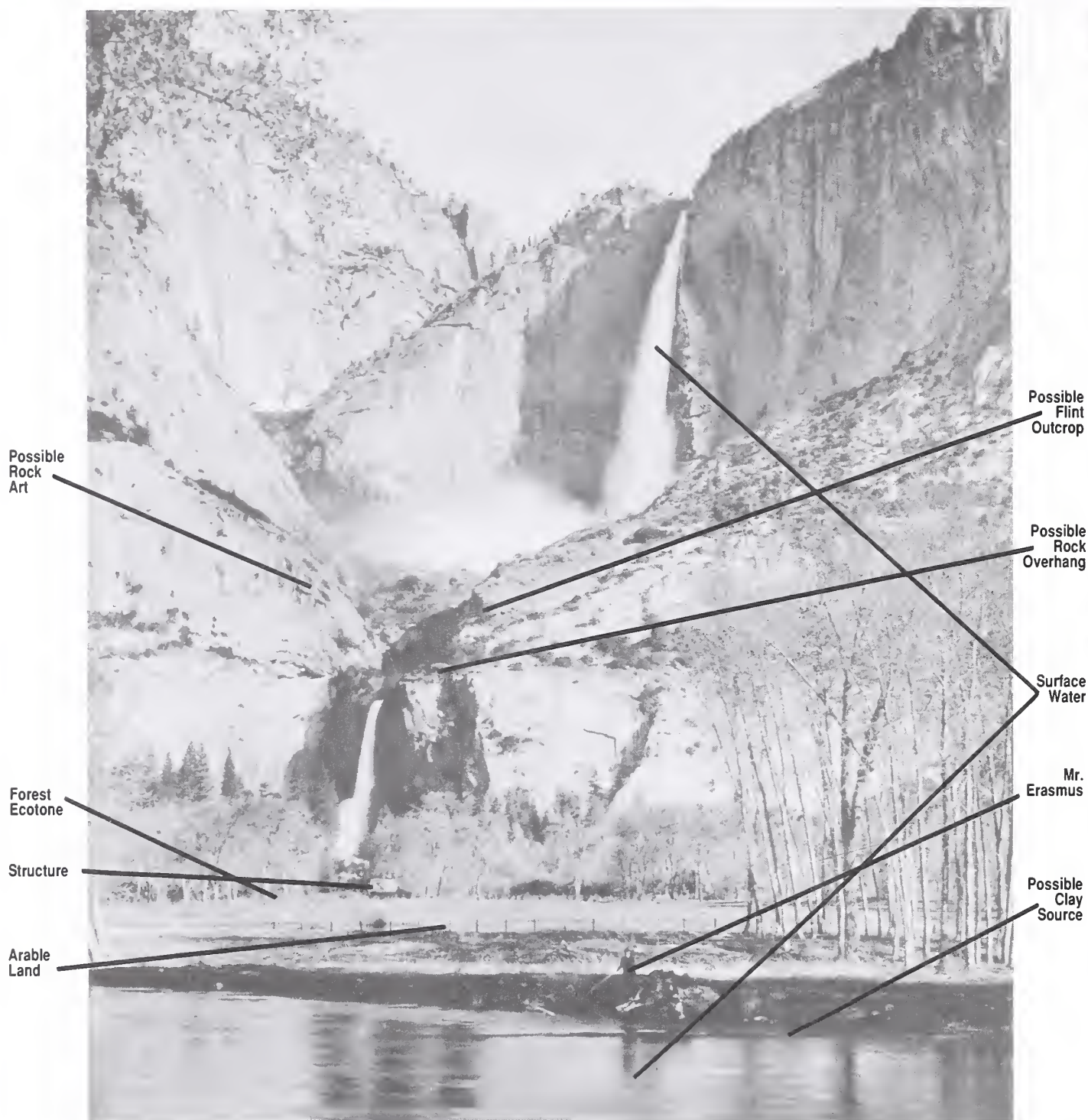
Practice on your own by surveying the photograph below. List all the cultural resources indicators you can find. Include those that may possibly exist.

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_
5. \_\_\_\_\_
6. \_\_\_\_\_
7. \_\_\_\_\_
8. \_\_\_\_\_





## FEEDBACK



There are several obvious indicators in this picture—surface water, arable land, forest ecotone, and homestead structure. Based on previous indicator exercises, you may have spotted areas that could possibly have indicators such as rock overhang shelters, flint outcrops, clay sources,



## HOW AND WHEN DO YOU DOCUMENT YOUR FINDINGS?

An important part of a cultural resources survey is documenting your findings. This will provide information for future planners identifying areas which need consideration. Survey documentation should include a list of the cultural resources indicators encountered and photographs of the indicators in context. You should also note the date and amount of time spent, the percent of the plan area covered, any problems encountered, and a list of surveyors. The information will also be used as a base for any additional cultural resource work needed. Should resources be found during excavation/construction that were not visible on the surface, the documentation will provide legal protection for the agency.

In most cases you should not collect artifacts from the site because artifacts should only be removed from their contexts for research purposes. However, if you feel that an artifact or site is about to be destroyed, or if someone else is likely to remove the artifact before you can return with professional assistance, you can collect the artifact. This, though, is done only after getting permission from the land owner. Be sure to make a sketch map to record the location of the artifact. To make sure that artifact location information is not lost, the artifact should be labeled in some way or kept in a labeled bag. Page (IV-25) provides a checklist for cultural resource documentation.

## YOUR TURN

What information should you document when you find cultural resources?

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## FEEDBACK

See list on page IV-25 for answers.

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## Summary

This module has reviewed the various types of indicators for cultural resources. Particular environmental components, artifacts, archeological structures, and features are all signs of past human activity. If any of these indicators are in a conservation plan area, a cultural resource may be present, and it may become necessary to evaluate that resource.

## THIS CONCLUDES MODULE 4

Evaluating Cultural Resources is next.

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# SUGGESTED CULTURAL RESOURCES DESCRIPTION CHECKLIST

## A. Site Location.

1. Provide a descriptive narrative of how to reach the site area from an established road, highway, or city. Include vehicle mileage figures for distance segments, if possible.
2. Make a sketch map of the project area and include environmental features such as roads, fences, streams, terraces, etc. Indicate the limits of artifact or feature dispersion. Include a north arrow and scale (even if approximate).
3. If possible, attach a separate plot of the site on a USGS 7 1/2' quad map copy.

## B. Site Definition.

1. Describe the horizontal spread of artifacts or cultural features and relate them to specific topographic features. Estimate distances involved.
2. Note any information you have about the depth of cultural material and of the plow zone. (For example, exposed in a cutback or found in an undisturbed soil context.)
3. Indicate the general nature of the project area soils and whether anthropic stains or features are present as well as where they are located.
4. Indicate all areas walked/observed across the site. Note any concentrations of cultural material or unusual features.

## C. Collections.

1. Make a summary list of material observed or picked up. Photograph artifacts in black and white. Indicate where retained artifacts are stored or if they were given back to the land owner. Under federal law, you are the legal custodian of these artifacts until they are placed in a proper facility.
2. If possible, list the artifacts by type. (For example, historic—3 sherds of glass, 2 of pottery; prehistoric—2 sherds, 5 chips or flakes.) Be sure to handle all artifacts with care because some may be fragile.
3. A representative sample of whole points and tools and of pot sherds with decorative marks or etchings should be sketched (exact scale tracing) for evaluation of culture type.
4. Indicate, if possible, where any whole tools or unusual artifacts were found on site.

## Lagniappe—just because it's interesting . . .

### Albany to Buffalo

The Mohawk Trail, another name for US 90 Massachusetts 2 and New York 5, provides an easy, gently graded route from Albany to Buffalo. As the name implies, it follows a prehistoric Indian trail which once linked the villages of all the tribes belonging to what white men called the Iroquois Confederacy.

Many other modern travel routes in the United States follow old Indian trails. A usual sequence was this: First, animals made paths to and from watering places or feeding grounds or salt licks. Indian hunters followed the animals, widening the trails, some of which later proved useful as means of communications between Indian settlements. Pioneers of European origin then used the Indian paths—on foot at first, later on horseback. Next wagons went along the same trails. Still later, when railroads were built, civil engineers often found that the best routes had been followed by the drivers of the horse-drawn wagons. Finally, when automobile roads were needed, highways often took the same easy grades that the Indians discovered long ago.

Franklin Folsom and Mary Elting Folsom, *America's Ancient Treasures*, Rev. ed., University of New Mexico Press, 1983, Albuquerque, NM, p. 348.

## Lagniappe—just because it's interesting . . .

### Axe, Adze, and Celt

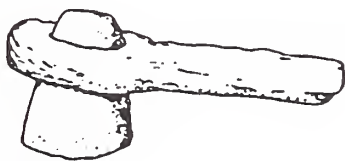
Prehistoric Indians cut and shaped wood with all three of these tools, which they fashioned from stone. Each was attached to a handle in its own special way. The axe was shaped by chipping, or by chipping and grinding and polishing. It was sometimes sharpened on one end, sometimes on both ends, and it had a groove which made it easier to attach a handle. (This is called hafting.) The groove might go all the way around the axe or only part way.

A celt was usually polished, had no groove, and was hafted as the illustration shows.

Although neither an axe or a celt looks very efficient to anyone who is used to steel tools, both work surprisingly well. Archaeologists who have tried stone axes found they could chop down a six-inch tree in less than 20 minutes.

The cutting edge of an axe or a celt is parallel to the handle; the cutting edge of an adze is at right angles to its handle. An adze is not designed for chopping down trees, but it is effective, for example, in hollowing out logs to make dugout canoes.

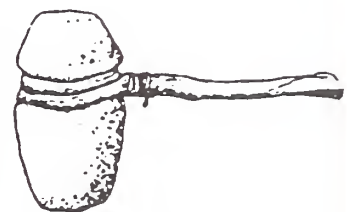
*CELT*



*ADZE*



*AXE*



Franklin Folsom and Mary Elting Folsom, *America's Ancient Treasures*, Rev. Ed., University of New Mexico Press, Albuquerque, NM, 1983, pg. 6.

Lagniappe—just because it's fun . . .



Early Man

The Far Side by Gary Larson is reprinted by permission of Chronicle Features.



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# MODULE 5

## EVALUATING CULTURAL RESOURCES

**This module tells you how to get assistance in evaluating cultural resources and how to begin the process of having their significance determined when you cannot avoid adversely affecting them.**

### OBJECTIVES

When you have completed this module, you will be able to:

1. Define the National Register of Historic Places criteria.
2. List other information useful in determining eligibility for the National Register of Historic Places.
3. Describe the process of determining National Register eligibility.

Have General Manual 420, Part 401 handy for reference.

**Start your audiovisual equipment for Module 5.**

### HOW ARE CULTURAL RESOURCES EVALUATED?

Suppose you have discovered that an exciting cultural resource exists in your SCS plan area. Your picture has appeared in the paper. SCS and the land owner have been congratulated on the important discovery. All is well. Then you make the determination that the SCS activity cannot avoid disturbing the cultural resource. Wringing your hands won't help; you must have the cultural resource evaluated according to the criteria established by the National Register of Historic Places.

### *Definition*

The National Register of Historic Places is the official list of the Nation's cultural resources worthy of preservation. It is compiled by the National Park Service. The National Register of Historic Places categorizes such cultural resources as districts, sites, buildings, structures, and objects that are significant in American history, architecture, archeology, engineering, and culture.



## Reminder

In Module 3, you were told that the National Register is not a complete list. Less than 10 percent of the United States and its territories has been surveyed to locate cultural resources. The significance of many known cultural resources has not been formally evaluated. Even though we only have to worry about protecting the significant cultural resources, we still need to evaluate and determine the significance of each one that cannot be avoided by the SCS activity.

## Reference

The National Register criteria of significance are listed in General Manual 420, Part 401.23.

## YOUR TURN

In your own words, give an overview of the kinds of resources listed in the National Register of Historic Places.

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## FEEDBACK

That's right. It's an official list of historic districts, sites, buildings, structures, objects, and locations that are important in our history and are worthy of preservation.

## YOUR TURN

Which of the following is a true statement about the National Register of Historic Places?

1. Only cultural resources already listed in the National Register are to be considered worthy of preservation. ☐
2. The National Register of Historic Places is not a complete list of cultural resources in the country. ☐

## FEEDBACK

Statement 2 is the one you should have checked. Statement 1 is a false statement, as only 10 percent of the country has been surveyed for cultural resources.

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## WHAT MAKES A CULTURAL RESOURCE ELIGIBLE FOR THE NATIONAL REGISTER?

To be eligible for the National Register, a cultural resource must have

INTEGRITY  
of  
LOCATION,  
DESIGN,  
MATERIALS,  
or  
ASSOCIATION.

Integrity, or historic authenticity of a resource, is defined by the presence of original building materials.

### *Example*

For example, a house or bridge should look the same as it did when it was first built. An archeological site should be relatively intact with little disturbance from erosion, plowing, or construction. Usually, cultural resources without such integrity are not eligible for the National Register and, therefore, are not significant.

### *There's More*

In addition, to be eligible for the National Register, a cultural resource must be:

- a. associated with events contributing in important ways to broad patterns of our history, such as the development of Indian civilizations or the westward expansion of America; or,
- b. associated with the lives of persons significant in our past; or,
- c. distinctively characteristic of a type, period, or method of construction, such as a Victorian house or a Pueblo Indian kiva; or,
- d. likely to yield information important in prehistory or history. For example, an archeological site could provide information on the origins of agriculture among prehistoric Indian groups in a region. The information that can be gained from the excavation of a site is particularly significant if:
  - the site is well preserved,
  - it is of a time period that is under-represented in a particular area or about which little is known,
  - there is an extensive array of artifacts from the site,
  - it can yield important environmental information, such as soil formation data, or
  - it can provide an opportunity for public education.

Significance may be considered at the local, state, or national level for listing of a cultural resource on the National Register. In other words, a house doesn't have to be the home of George Washington to be eligible for the National Register. The home of an important local figure is also eligible if it meets the integrity requirement. Significant local and state level resources make up the bulk of the National Register listings.

## YOUR TURN

There are more considerations in determining if cultural resources meet the requirements of the National Register, but pause now and check your understanding of the material so far.

A cultural resource must have integrity of \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, or \_\_\_\_\_ to be included on the National Register.

## FEEDBACK

That was easy. Of course, your answer looks like this:

A cultural resource must have integrity of location, design, materials, or association.

## YOUR TURN

Answer true or false.

True False

1. All cultural resources listed on the National Register must be associated with famous people.
2. If a cultural resource associated with important events in the broad patterns of our history has integrity, it is eligible for the National Register.
3. All cultural resources listed on the National Register are of national significance.
4. A dam may be listed on the National Register of Historic Places.

<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>

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## FEEDBACK

The answer to question 1 is FALSE. As well as being associated with the lives of persons significant in our past, cultural resources that are associated with events contributing to broad patterns of our history or which have distinctive characteristics of a type, period, or construction method can be considered for the National Register.

The answer to question 1 is TRUE. See the discussion for question 1.

If you answered FALSE to question 3, you're right. Cultural resources can be listed for state and local significance as well.

The answer to question 4 is TRUE. An SCS dam may be listed if it meets any or all of the criteria of the National Register..

There are a few other considerations. Ordinarily, cemeteries, birthplaces, or graves of historical figures; properties owned by religious institutions or used for religious purposes; structures that have been moved from their original locations; reconstructed historic buildings; resources that are primarily commemorative in nature; and resources that are less than 50 years old are not considered eligible for the National Register. However, such resources will qualify if they are included in a district that does meet the criteria or if they fall within the following categories:

- a religious property that is significant for its architecture or artistic distinction of historical importance. Example—The missions of San Antonio, Texas.
- a building or structure that has been removed from its original location but which is significant for its architecture or which is the surviving structure most importantly associated with a historic person or event. Example—Territorial Capitol, Legislative Hall, Vincennes, Indiana.
- a birthplace or grave of a historical figure of outstanding importance if there is no other appropriate site or building directly associated with this person's productive life. Example—John Green Mausoleum, Boise, Idaho.
- a cemetery which is significant for the graves of important persons, its age, civil features of a distinctive design, or its association with historic events. Example—Vicksburg, Mississippi war battlefield cemetery.
- a reconstructed building in a suitable historical environment that is presented as part of a restoration master plan, if no other similar building or structure has survived. Example—"Territorial Restoration," Little Rock, Arkansas.

- a property primarily commemorative in intent of design, age, tradition, or symbolic value. Example—Lincoln Memorial, Washington, DC.
- a property achieving significance within the past 50 years if it is of exceptional importance. Example—Original NASA launch pad, Cape Canaveral, Florida.

Many states have historic preservation plans which specify the types of resources that have been determined to be eligible for the National Register. These plans also note the types of cultural resources in the states that are not well represented on the National Register. You should have a copy of this document to consult when determining the eligibility of cultural resources.

## YOUR TURN

Check your understanding of significance by indicating which of the examples listed here may be considered cultural resources eligible for the National Register of Historic Places.

	YES	NO
1. The home of George Washington	<input type="checkbox"/>	<input type="checkbox"/>
2. An eighteenth century covered bridge.	<input type="checkbox"/>	<input type="checkbox"/>
3. A 1960 brick house.	<input type="checkbox"/>	<input type="checkbox"/>
4. A building by architect Frank Lloyd Wright.	<input type="checkbox"/>	<input type="checkbox"/>
5. Appomattox Court House where General Lee surrendered to General Grant.	<input type="checkbox"/>	<input type="checkbox"/>
6. An early prefabricated house by Sears and Roebuck.	<input type="checkbox"/>	<input type="checkbox"/>
7. A natural environmental site of cultural significance to indigenous Americans, such as Two Lovers Point on the island of Guam.	<input type="checkbox"/>	<input type="checkbox"/>

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## FEEDBACK

1. If you answered yes, you are correct.
2. If you answered yes, you are correct.
3. If you answered no, you are correct.
4. If you answered yes, you are correct.
5. If you answered yes, you are correct.
6. If you answered yes, you are correct and perhaps surprised.
7. If you answered yes, you are correct.

## WHAT IS THE PROCESS DETERMINING ELIGIBILITY FOR THE NATIONAL REGISTER?

Even though the eligibility requirements are clearly spelled out, you need to make these determinations in consultation with your cultural resources coordinator and a cultural resources specialist. When you cannot avoid a cultural resource and need to determine its eligibility, call your SCS cultural resources coordinator for on-site assistance. If you cannot get on-site assistance in evaluating a cultural resource within a reasonable length of time, you should:

- write a description of the resource and its location,
- document the type of conservation activity being recommended,
- photograph the resource,
- send this documentation to your SCS state cultural resource coordinator with a request for its evaluation.

A copy should be sent to the NTC cultural resources specialist by the SCS State cultural resources coordinator.

For an archeological site, you should include:

- a description of the size of the site,
- the kinds of artifacts it contains,
- the estimated depth of the soil horizons containing the artifacts,
- the environmental setting,
- the current condition and the erosion phase.

Much of this information can be noted on a roughly-scaled sketch map. Copies of this documentation should be included in the case file and noted in the conservation assistance note, CPA-6.



## YOUR TURN

List the items which should be included as background information in a request for an evaluation of cultural resources you have found.

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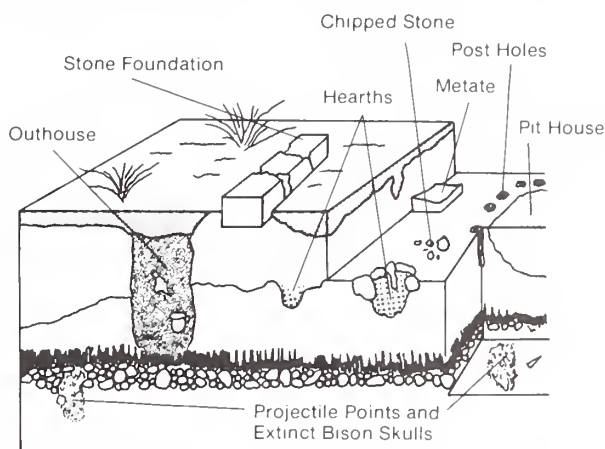
## FEEDBACK

If you listed location, type of conservation activity, and photography of the resource, you are correct. Remember, for an archaeological site, you should include in the site description the size of the site, the artifacts found, the depth of the soil horizons containing the artifacts, the environmental setting, the current condition, and the erosion phase.



## YOUR TURN

### EVALUATION OF SIGNIFICANCE: THE ERASMUS HOMESTEAD SITE



## GENERAL CONDITION

In Level I, artifacts from the last 1,000 years are scattered and mixed together. They are the remains of both an historic house site and an Indian village. Even though the artifacts are mixed together, the brick foundation and historic trash are present. The remains of a wetland from 3000 B.C. (Level II) and an Indian campsite from 7000 B.C. (Level III) have not been disturbed. There is the potential of plant remains being preserved.

## BACKGROUND INFORMATION

SCS surveyors discovered this archaeological site during preliminary investigations prior to placing a large floodwater retention structure in a tributary to the Erasmus River (see IV-19). Three levels of history are represented. The top level (I) contains the remains of the first brick structure in the area, dating to the early 18th century. The middle layer (II) is a 7th century Indian village. These are common enough, but this one is fairly well preserved. The lowest layer (III) contains the remains of a 7000 B.C. Indian camp.

This cultural resource is an archaeological site which spans a time period from 7000 B.C. to A.D. 1820 and is in the same location as when it was originally inhabited. The top 8 inches of the site, however, have been disturbed by plowing.

Is this site significant? Explain the reason for your answer.

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## FEEDBACK

Yes, this site is significant because it has integrity of location, association, and material. It is associated with events contributing to broad patterns of our history, and it will probably yield information important in prehistory and history.

### Read on for a full explanation

This expanded discussion of the evaluation of significance exercise shown above is optional reading. It is a simplified version of the ones archeologists actually develop for real-life situations. The example shows, in part, the process and logic used to reach the decision that a site has significance.

Carrying our example of the Erasmus Homestead Site further, SCS and the SHPO agreed that the site had the potential to yield important information and agreed on a data recovery (excavation and analysis) plan to investigate the site.

That excavation and analysis provided the basis for the following statements:

### ***PLOW ZONE 1000 AD***

The upper 8 inches of the site is a badly disturbed plow zone that contains a mixture of artifacts: bricks, purple glass, square nails, chipped stone tools, and fire-cracked rocks. Even though the artifacts have been scattered by plowing, they retain their basic relationship to each other.

### ***OUTHOUSE***

All that is left of the Ira Erasmus homestead is a stone foundation and the undisturbed remains of an outhouse. The upper 8 inches of this feature is within the plowzone. The next 50 inches, however, are intact. The outhouse pit was dug into an earlier occupation (the 600 A.D. Indian village) and terminates above a layer of gravel. Archeologists were able to date the Erasmus Homestead reliably to about 1820 A.D., based on the broken glass, cups, buttons, and coins preserved in the filled-in outhouse pit, which provides a kind of sealed time capsule.

### ***HEARTHS***

Twelve hundred years before Erasmus homesteaded his land, the Upper Muddy Boggy Culture built a village at this site. Stoned-lined hearths and hearths that were dug into the clay along the old river bank are still full of the charcoal from the last fires. Archeologists dated some of the charcoal (by Carbon 14 method) to establish that the village was abandoned about 600 A.D. The ends of poles still in the post holes of a pit structure yielded a date of 625 A.D., based on dendrochronology (tree-ring dating). Scattered throughout this level were chipped stone tools and a metate (grinding slab) for processing some of the wild seed collected from the river banks.

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## **WETLAND 3000 BC**

In roughly 3000 B.C., the Upper Muddy Boggy River changed course, forming an ox-bow lake at this site. Cut off from the main flow, the new lake turned into a bog. No prehistoric settlements are associated with this wetland, although some flint chips were recorded.

The oldest use of the site, located in the level below a gravel bar produced by the Upper Muddy Boggy River, was determined by archeologists who found the remains of ancient big-horned bison. As a hunting site, it is unique in that only the skulls were found, suggesting that the bison were killed here and eaten elsewhere. Found among the skulls were the stone tools and projectile points of an earlier hunting and gathering culture. Archeologists were able to date the bone (by Carbon 14 method) to around 7000 B.C.

Significance is determined from the data for the following reasons:

Because it is the only brick house in the area dating to the early nineteenth century, the house builder may have been a prominent person in the community. Historic research would indicate whether or not the site met criterion (b), "associated with the lives of persons significant in the past." It is an early settlement site and therefore meets criterion (a), "associated with events that have made a significant contribution to the broad patterns of our history." And, it meets criterion (d), "yielded or may be likely to yield information important in prehistory or history." The 3000 B.C. portion of the site is not significant, as many similar sites are known. However, the fact that the hearths in the 600 A.D. Indian campsite might contain plant food remains is very significant and meets criterion (d). The plant food remains can help define the environment of 1200 years ago. We have no information about the people of the 7000 B.C. occupation, but we expect the environment and cultural lifestyle was different.

Therefore, although one component, the 3000 B.C. zone, is not significant, the archeological site is significant for the information it can provide about the environment of 7000 B.C., village life, plant usage at 600 A.D., and the European colonization of North America.

## **THIS CONCLUDES MODULE 5**

### **Evaluating Cultural Resources**

In Module 6 you will be given instruction on protecting cultural resources during implementation of SCS activities.

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# SOME THINGS TO CONSIDER WHEN EVALUATING THE SIGNIFICANCE OF CULTURAL RESOURCES

1. **Age:** Sites providing information on early settlement, technology, commerce, industry, or lifeways are significant. A combination of attributes can make them more significant.
2. **Regional Interest:** Sites that relate to regional or local research problems are significant.
3. **National Interest:** Sites that relate to national or universal research problems are even more significant than those of regional interest.
4. **Preservation:** Sites containing well preserved structural, faunal, floral, or skeletal remains are significant. The presence of several attributes can make them more significant.
5. **Multi-function:** Sites exhibiting a range of well-defined activity or functional areas are significant.
6. **Uniqueness:** Sites containing rare or unique features (technological innovations, ethnic components) are significant.
7. **Previous Knowledge:** Site types about which little is known and which provide information on poorly understood social-historical contexts are more significant than those that represent well known contexts.
8. **Public Significance:** Sites which may be used in public education programs because of their content and accessibility for public viewing are significant.
9. **Size and Density:** Larger sites and those containing dense deposits of material culture are significant.
10. **Famous Events or Persons:** Sites associated with a person or event of local, regional, or national interest are significant.

Note: Any single criterion can make a site significant.



## **Evaluation Of Significance**

### **INTEGRITY OF MATERIALS**

This cultural resource is constructed of sucrose, dextrose, and glucose materials, ranging from gumdrops of a type manufactured only during the period 1805–1875 to gingerbread baked in large ovens of the period.

### **INTEGRITY OF LOCATION**

The structure is located in the Deep Dark Forest, which is of a type commonly chosen by big, bad witches for habitation.

### **INTEGRITY OF DESIGN**

Although the building materials make this cultural resource a one-of-a-kind structure, the general design is similar to those selected by most big, bad witches from 1835-1855.

### **GENERAL CONDITION OF CULTURAL RESOURCE**

The structure retains its original design and significant elements because, fortunately, at the time of the tragic death of the original owner, a curse was placed on the structure, preserving it for 100 years. Minimal deterioration has occurred after the 100-year period. There is some evidence of damage of the type which usually occurs when small children nibble at sweets. However, this seems to have occurred during the occupancy of the original owner.

### **ARTIFACTS**

An extensive array of artifacts is located in and around the structure, including brewing kettles, vials and bottles still containing potions and other evil concoctions, and the skeletal remains of an adult female found in a food-processing chamber located in the interior of the structure.

### **AGE OF CULTURAL RESOURCE**

The structure is assumed to have been constructed around 1850 (during the lifetime of the Brothers Grimm).

### **ASSOCIATED WITH LIVES OF PERSONS SIGNIFICANT IN OUR PAST**

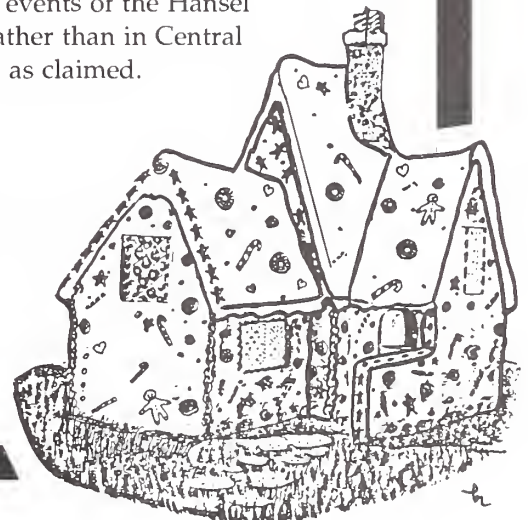
The cultural resource is associated with the famous brother and sister team, Hansel and Gretel, and the infamous big, bad witch of the gingerbread house.

### **PUBLIC EDUCATION OPPORTUNITY**

Preserving this structure offers the rare opportunity of graphically illustrating to young children the dangers of associating with big, bad witches and of over-indulging in sweets.

### **YIELDS IMPORTANT INFORMATION ABOUT OUR HISTORY**

The discovery of this structure proves that events of the Hansel and Gretel episode occurred in America, rather than in Central Europe as commonly believed or in Russia as claimed.



## The U.P. Site

In 1960 Ivan Hayes was operating a dragline on the Union Pacific Railroad's right-of-way near Rawlins, Wyoming. In the muck around the spring he was clearing, the dragline caught on some huge bones. Hayes reported this to Dr. George A. Agogino, at that time Professor of Anthropology at the University of Wyoming. Agogino quickly got money from the National Geographic Society. Then he persuaded Henry and Cynthia Irwin, a brother-sister team of archaeologists, to bring their student crew from a dig elsewhere in Wyoming. Battling against mud and water, the excavators unearthed proof that hunters had butchered a mammoth at this spot. Its crushed skull indicated that they had probably killed it by hurling down rocks from the top of a bank above the stream where it had come to drink.

Franklin Folsom and Mary Elting Folsom, *America's Ancient Treasures*, Rev. ed., University of New Mexico, Albuquerque, NM, 1983, pg. 206\*



## Lagniappe—just because it's interesting ...

### Spiro Mound

On the bank of the Arkansas River near what is now Spiro, Oklahoma, a remarkable village stood in later prehistoric times. Its people followed the Mississippian lifeway and built temple mounds, eight in all. They were excellent craftsmen, particularly adept at carving intricate designs on conch shells, which came all the way from the Gulf of Mexico. Women fashioned beautiful pottery in a great variety of styles; and much of it was buried with the dead, together with other grave goods. The elaborately furnished Spiro burials were a rich storehouse of information about one way of living on this earth—until the day when a modern farmer's plough exposed the handiwork of an earlier farming people.

Soon a business operation began. Men formed a corporation and began literally to mine the mound using road scoops and dynamite. The miners sold great quantities of pottery, pearls, and other material, just as gold miners sold what they took out of the ground. Before long, the mounds had been gutted, to the modest enrichment of the diggers and to the enormous impoverishment of science.

Slowly, painfully, Mr. and Mrs. Henry W. Hamilton, amateur archaeologists, set about undoing what little of the damage could be undone. For 16 years they traced artifacts to their buyers and recovered them whenever possible. The result of this patient endeavor was a surprisingly large amount of material which revealed a culture akin to, but also distinct from, the cultures at Etowah in Georgia and Moundville in Alabama.

Franklin Folsom and Mary Elting Folsom, *America's Ancient Treasures*, Rev. ed., University of New Mexico Press, 1983, pg 194.



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# MODULE 6

## PROTECTING CULTURAL RESOURCES DURING IMPLEMENTATION

**This module lists ways to mitigate adverse effects on cultural resources and to protect these resources if they are discovered during construction.**

### OBJECTIVES

When you have completed this module, you will be able to:

1. Identify SCS's responsibility for cultural resources during implementation/operations.
2. List methods for mitigating adverse effects.
3. List ways to protect cultural resources discovered during construction.

Have General Manual 420, Part 401 handy for reference.

**Start your audiovisual equipment for Module 6.**

### HOW ARE CULTURAL RESOURCES PROTECTED AND WHAT ARE YOUR RESPONSIBILITIES?

Okay, here you are. You've had the experience of finding and identifying an important cultural resource in an SCS plan area. Newspaper photos aside, with this significant discovery come serious responsibility and decisions. You, with the help of your SCS cultural resources specialist or coordinator, must insure that the cultural resource is protected.

As you recall, responsibility for protecting cultural resources begins during the conservation planning process, but it doesn't end there. It is also necessary to insure that the decisions made during planning are carried out during implementation of the plan. And, there is the added responsibility of protecting cultural resources that may be discovered after work is underway. This module explains these two areas of responsibility.

The first step in dealing with your significant site is to determine if you can work around it, avoiding it completely (planned avoidance); or if the site cannot be avoided, decide what actions can be taken to lessen the harm that will be done by the SCS activity (mitigation of adverse effects).

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## PLANNED AVOIDANCE

Planned avoidance is, of course, the best solution because it means there will be no harm to the cultural resource.

Here are a few examples of planned avoidance:

1. Design Changes. When you know the precise location and boundaries of a cultural resource, changes in the engineering design can often be made to avoid the resource. This may be as simple as increasing the spacing on a terrace system, or it may be the more complex realignment of a water control structure.
2. Setting work limits. Examining both the location of a cultural resource and the type of conservation activity, it may be possible to set up a work zone or limit that will not harm the resource or interfere with construction requirements. Flagging such limits with field markers and monitoring the activity during implementation will insure that no harmful impacts occur.
3. Special provisions. These are items such as retaining walls to protect a cultural resource from water damage—a provision which may be included in a construction contract. Alternative practices, such as switching from terraces to grassed waterways, may also be specified in the event of unexpected discoveries.
4. Rights-of-way. Cultural resources located adjacent to construction zones need to be protected. Specific lanes for routing heavy equipment around these resources will prevent damage.

## CASE STUDY

The actual case that follows shows how SCS used planned avoidance to protect cultural resources. After two near-flood disasters, the district board and local farmers began pressing for the completion of the North Fork River watershed. Channel modifications would be necessary to enhance capacity and to provide greatly needed flood relief. Preliminary engineering designs were under way when the cultural resources inventory unexpectedly discovered 15 highly significant sites, many of which were highly sensitive Indian mound locations. These were located in the proposed work zones along both sides of the stream. Project cost-share monies were extremely limited. Given the need for technical assistance and the potential costs of mitigating such resources, how might SCS approach this problem?

## SOLUTION

In this case, the SCS project engineer requested the assistance of the cultural resources coordinator and specialist. On-site inspection pinpointed site locations and engineering needs. Work specifications were drawn up to include design changes that called for selected combinations of clearing and snagging, bank straightening, and berm fill. Work limits were set around certain sites, while others had right-of-way paths cleared for vehicle access only. Planned avoidance satisfied all the cultural resource concerns and assured the timely installation of needed project measures.

**YOUR TURN**

Define planned avoidance.

**FEEDBACK**

You are correct if your answer goes something like this: Planned avoidance is:

1. designing installation measures to avoid harming a cultural resource,

2. physically protecting them, or

3. writing special provisions in work specifications to ensure that construction activities will not affect the site.

**YOUR TURN**

Describe one method of planned avoidance that you might use.

**FEEDBACK**

Your answer may include implementing work limits or making design changes.

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## MITIGATION OF ADVERSE EFFECTS

We always hope that the possibility of harming a cultural resource can be avoided through early planning. Sometimes, however, when the final engineering design is completed, we cannot avoid the resource and some action must be taken to reduce the harmful impacts (mitigation). Even when all of the previous planning steps have diligently been taken, a cultural resource may be buried and only discovered after construction begins. Always remember that archeological sites are preserved by the process that helps create them—being covered over by layers of soil and sediment over time. Older sites can be buried surprisingly deep.

When there will be an adverse effect to a known cultural resource or when an unknown cultural resource is discovered during construction activity, mitigation measures must be implemented.

### THIS IS THE LAW

These measures may include:

- landscaping to protect or enhance the historic scene,
- restoring an historic building to its original form,
- relocating an historic structure to a safer place,
- stabilizing a site or building to prevent further deterioration,
- making careful records about the architectural features and history of a building or structure,
- excavating a site to recover significant archeological information.

Before a mitigation project or effort is implemented, there are three principles to remember:

1. Relate the mitigating action to the state Historic Preservation Plan (get this information from the SHPO).
2. Conduct the work in a timely and cost-efficient manner for the public good. (Information from the reference handbook for those involved in contracting for cultural resources will be of value here.)
3. Protect the values (information) that originally made this resource significant. These principles should be adhered to not only because you are the SCS representative in charge but also because you are a citizen whose own heritage is enriched by the finding. When all three principles are successfully used, the most important attributes of a resource will be studied in an organized way for a reasonable cost in the shortest timeframe possible.



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**Example:  
A HISTORIC  
STRUCTURE**

Let's suppose the site in question is an historic structure such as an old pioneer cabin which is significant and cannot be avoided. What kinds of mitigation could be done? Can you restore the building to its original form and relocate it to a safer place? No? Then consider the careful documentation of this structure. Photos, accurate architectural measurements, and a compiled history of former inhabitants and events will preserve the most critical information after the structure is gone. Remember, the SCS cultural resources coordinator will consult with the SHPO on the best preservation measures for the site. Their advice could prove to be invaluable in a mitigation effort. Your documentation and assistance will streamline the process even further.

**Example:  
AN ARCHEOLOGICAL  
SITE**

In the case of a below-ground archeological find, the following steps might be used: stabilizing the site to prevent further deterioration; or conducting data recovery by excavation, investigative research, and compilation of historical documentation. Remember, all of the above are potentially complex, costly, and time consuming. This is why you need to consider the three mitigation principles and consult your SCS cultural resources coordinator.

**YOUR TURN**

Do you remember the three mitigation principles? List them.

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**FEEDBACK**

1. What you do must relate to a State Historic Preservation plan;
2. the work must be timely and done in a cost-efficient manner for the public good; and
3. it must protect the values that made the resource significant.

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## WHY MITIGATE?

This final point makes the whole process worthwhile. Your finding, if deemed “significant,” is just that. It contributes to our knowledge of the past, whether local or international. Imagine that you had discovered the equivalent of the Dead Sea Scrolls or the famous Paleolithic cave drawings in Spain. What a treasure you would have given us.

### *Nice To Know*

One of China’s most spectacular national treasures, the tomb of emperor Qin Shi Huangdi, was discovered in 1975 by farmers digging a well. It contained 7,500 life-sized terra cotta (clay) warriors and horses that were the exact likenesses of the men under the emperor’s command!

## CONSTRUCTION DISCOVERIES

Unexpectedly, the contractor’s bulldozer just plowed into a find. Now what do you do? Notify your supervisor, the cultural resources coordinator, and stop any work or activity that might damage this find. You must also make every effort to secure the area until an on-site evaluation can be made by a professional cultural resources specialist. SCS policy on construction discoveries is found in GM 420, Part 401.8.

## DOCUMENT

Some quick decisions now must be made. Besides immediately calling your supervisor and the SCS cultural resources coordinator to report the finding, what do you do right away?

- Document the site immediately.
- Write down the location.
- Inventory the material as thoroughly as you can without disturbing the finding.
- Take pictures.
- Question the land owner and workers to see if any other material of interest has been seen.

## PROTECT

Use common sense and incorporate a few practical steps in protecting the site. If it appears that your finding can be damaged once it has been uncovered, protect it with plastic, boards, canvas, or other materials. If you are afraid that the artifacts might disappear, consider the possibility that someone may have to stay in the area until the on-site inspection does take place. Vandalism, souvenir hunting, and actual theft are becoming commonplace at sites—a loss to us all. Consequently, if you feel there is danger, or if for some reason assistance from the cultural resources specialist cannot be readily obtained, be sure to document the finding with as many notes as possible.

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## **BURIALS**

People have been fascinated with human remains and cemeteries since recorded time. We are naturally curious, especially about other people. Scientists view burials as rare time capsules, containing information not otherwise available on past societies. Looters often see them as opportunities to plunder objects for personal profit or enjoyment. These features may require special protective measures to prevent vandalism. We also have a legal and moral obligation to handle human burials in a special way. Virtually every state has strict regulations on how historic cemeteries are to be treated or moved. Many states also regulate the treatment of Native American burials and religious areas. In Oklahoma, for example, it can be a felony conviction to remove burial contents improperly. We should always remember to handle these mitigation or discovery situations with special care and respect.

### ***Nice To Know***

In 1968 near Zolfo Springs, Florida, dragline operators unearthed a prehistoric cemetery 6,500 years old! It contained previously unknown wooden objects and cloth fabrics that were perfectly preserved because of the bog-like conditions.

## **LEGAL IMPLICATIONS**

### ***Project***

Make sure that any individuals on the site understand the importance of the discovery and the legal implications. When Federal money, land, or permits are involved, it is the law that cultural resources be protected. In many states, local laws also regulate such finds. Therefore, as the SCS representative in charge of the project, you are responsible for such protection. The cultural resources found during the project are your responsibility, so do not be afraid to tell people the law. The contractor and other involved parties must understand the possible penalties or fines that may be involved if there is wanton destruction or vandalism of a site.

### ***Non-project***

Another situation that can arise involves the case of private ownership of affected areas. An owner may wish to proceed with the technical assistance regardless of the cultural resources discovery. As an owner of private property, the individual has the right to do so unless other regulations, such as a conservation easement contract, govern the situation. You do not have this choice. As an SCS representative, you will have to explain—diplomatically—that you are bound by Federal regulations and must begin required mitigation procedures before further technical assistance is allowed. Such a scenario rarely happens but it is best to be prepared.

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## SUMMARY

The purpose of this module has been to enable you to identify SCS responsibility for cultural resources during implementation and operations. Since protection of the resource is a major objective, you have learned to approach the problem either through planned avoidance of the resources or through mitigating adverse effects. Mitigation can be any combination of the following forms of preservation:

1. restoration
2. relocation
3. stabilization
4. excavation
5. documentation
6. landscaping

Remember that whenever possible avoidance remains the easiest and most desirable way to protect cultural resources.

For your own protection, you should also keep a careful record of all your activities regarding the site or discovery in question. Under Federal law, the state conservationist is responsible for any cultural resource within a SCS project area, but you are your agency's and nation's representative in this matter.

Finally if in spite of the best laid plans a cultural resource is discovered during construction, you will know how to act responsibly. When the Section 106 process of review, evaluation, and mitigation has been followed, you as the SCS representative have done your job and avoided any potential litigation hazards. Mitigation alternatives are frequently worked out to the satisfaction of all concerned.

## TRY THIS

Rest a bit, then try your hand at mitigating a site with the Cultural Resource SCS DIGKIT computer disc. Insert the disc into your IBM compatible PC and when you see the "A" prompt on the screen, type in SCS1. After you have completed the exercise, come back here and answer these questions.

## YOUR TURN

1. What was the other protective alternative suggested for mitigating this site?
2. What did the soil stains represent?
3. Why was the site found to be a French Trading Post?

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## FEEDBACK

3. Structure and artifacts of French European style
2. Former wall locations
1. Move the location of the pond

## THIS CONCLUDES MODULE 6

When you have finished this exercise, you will be ready for the Module 7 pertaining to your particular region. Upon completion of that module, have the "Cultural Resources Training Modules 1–7 Certification of Completion" filled out and signed by your supervisor or trainer, and forward a copy to the State Training Officer.





# CULTURAL RESOURCES TRAINING

## Modules 1-7

### CERTIFICATION OF COMPLETION

This is to certify that \_\_\_\_\_ completed  
(Full name)  
Modules 1-7, Cultural Resources Training, \_\_\_\_\_ and should  
(Date)  
be credited with 12 hours of training.

Signed \_\_\_\_\_  
Supervisor/Trainer Participant

Completion of Modules 1-7, Cultural Resources Training, is acknowledged and documented in the above-named employee's record.

Signed \_\_\_\_\_  
State Training Officer Date



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